M. Brian Blake, PhD

Curriculum Vitae

Executive Vice President and Nina Henderson Provost Distinguished University Professor of Systems and Software Engineering Concurrent Professor of Electrical and Computer Engineering Concurrent Professor of Neuroengineering, College of Medicine Drexel University mbb@drexel.edu



CAREER SUMMARY

Dr. Blake is Executive Vice President for Academic Affairs and Nina Henderson Provost at Drexel University. As the highest ranking academic officer, he oversees all academic programs across the 14 schools and colleges and over 25,000 students. Provost Blake has led the implementation of a responsibility-centered management (RCM) budget model across all the schools and colleges and leads, on behalf of the President, the implementation of the University's Strategic Plan. Provost Blake has overseen the hiring of over 55 tenured/tenure-track faculty and four deans. As Provost, Dr. Blake led the development of an academically focused strategic vision entitled "Creating the 21st Century Academic Experience". He devised a faculty-led, grassroots set of initiatives to reimagine the academic experience at Drexel and broadly for experientially-influenced education. He led the development of two specific initiatives to allow the faculty to develop core signature areas, Drexel Areas of Research Excellence (DARE) and Market-Driven Academic Ventures (MPV). These programs facilitated over 41 interdisciplinary research teams and 25 new interdisciplinary degree program proposals. To intentionally involve students and faculty within the strategic academic planning, Dr. Blake conceived and led the creation of a new student advisory group (Dragon'24) to enhance the climate for all students on campus. Blake also initiated a Provost's Fellows program that created 10 positions in the Office of the Provost to work on strategic areas to enhance the academic mission. InsPIR (Innovations in Pedagogy: Implementation and Reflection) is another program that encourages grassroots planning activities to develop next-generation pedagogical approaches. Provost Blake oversaw the establishment of a new Graduate College and an initiative to increase and resituate the professional Master programs in the evolving Northeast market. Awards of sponsored research increased by 15% over the first two years of the initiative. Admission to master and professional graduate programs has increased by 10% in first two years of the initiative. Drexel received the collaborative award of the \$75 million National Network for Manufacturing Innovation (NNMI) grant entitled Advanced Functional Fabrics of America (AFFOA) with MIT. Provost Blake continues to lead the academic strategy and vision that overlays Drexel University's urban renewal initiative and public-private partnership to bring innovation to West Philadelphia, the (\$3.5 Billion, 14 acre) Schuylkill Yards. As a part of his efforts, he serves on the Science Center-Philadephia Advisory Board, Opportunities Industrialization Center (OIC-Philadelphia) Advisory Board, Academy of Natural Sciences Trustee Board, the Graduate Records Exam (GRE) Advisory Board, Georgia Tech's College of Computing Advisory Board, and George Mason's Volgeneau School of Engineering Advisory Board.

Prior to Drexel, Dr. Blake was Vice Provost for Academic Affairs and Dean of the Graduate School at the University of Miami. As Dean of the Graduate School, he had oversight and advocacy of universitywide graduate programs (including the Medical campus) consisting of over 155 programs housed in 12 schools and colleges comprised of more than 5700 students. As Vice Provost for Academic Affairs, Dr. Blake had special responsibilities for the advocacy, enhancement, and policy matters regarding research programs for disciplines on the Coral Gables campus including Architecture, Arts and Science, Business, Communication, Education and Human Development, Engineering, Law, Music, and Nursing. Also as Vice Provost, he oversaw university-wide faculty enhancement and diversity efforts with respect to initiatives for faculty recruitment, hiring, retention & promotion, and equity.

During his term at the University of Miami, Dr. Blake was cited by a "Resolution of Tribute" issued by the Board of Trustees to have universally elevated the visibility of graduate education and significantly enhanced the environment for faculty success at the University of Miami. In three years, the Graduate School reinvented its research-oriented and professional development programs. The creation of the *Dean's Prestigious Fellowship Program, First-Year Research Guide, Fellowship Writing and Review Initiative (FWRI),* and *Distinguished Scholar/Mentor Lecture Series* all helped to jumpstart the students'

research careers and greatly increased applications to and awards of external fellowships and recognitions. A strategic initiative, *Research Intersections*, was created to promote and facilitate interdisciplinary research combining STEM fields and the humanities and arts. *UGrow*, a partnership between the College of Arts and Sciences and the Graduate School, was created to help develop PhD students in the humanities to be prepared for alternative careers beyond academia. During his term in his capacity of Vice Provost, the Office of the Vice Provost for Academic Affairs (OVPAA) institutionalized a new office, *SEEDS*, that focuses on climate and faculty retention. In a three year period, OVPAA oversaw the hire of 7 tenured/tenure track Black faculty which, at the time, was over 20% of the original population of Black faculty. Blake oversaw the creation of the *LeadershipU Academy*, a year-long enrichment program to foster new academic leaders within the faculty body. Finally, Blake led the Presidential Task Force and university response for the climate challenges associated with the national issues generally associated with the *#BlackLivesMatter* movement.

At the University of Notre Dame, Dr. Blake was the Associate Dean for Research & Graduate Studies and Professor of Computer Science and Engineering from 2009-2012. He provided oversight for research programs and graduate studies in the College of Engineering. During his term, the College of Engineering had record increases (~100%) in research awards and expenditures and the graduate program grew by over 30%. During his term, he led the creation of new recruitment programs, *NDSynergy*, *NDConnect* and *NDConnection*, that engaged potential PhD applicants at a targeted group of peer and aspirational institutions. Prior to Notre Dame, he was on the faculty of Georgetown University where he served as Chair of the Department of Computer Science. He was chair and director of graduate studies during the inaugural years of university's first graduate program in computer science. He also orchestrated several STEM initiatives including a new professional Master program in Technology Management and collaborative efforts with the Departments of Biostatistics and Radiology, both in the Medical School.

As a Distinguished University Professor of Systems and Software Engineering, Dr. Blake has appointments in the Department of Computer Science, Department of Electrical and Computer Engineering, and the Department of Neuroengineering. He has served as advisor or co-advisor to 15 postdoctoral fellows and graduate students and more than 30 undergraduate researchers. He has authored or coauthored over 200 journal articles, books/book chapters, and refereed conference/workshop papers. He is most known for his contributions to the areas of adaptive, inter-organizational workflow for web-based services and systems. Dr. Blake has served on 5 National Academies' studies or committees and on the National Science Foundation's Advisory Committee for the Computer and Information Science and Engineering (CISE) Directorate. He is Editor-in-Chief of IEEE Internet Computing, former Associate Editor of IEEE Transactions on Service Computing, and Editor-in-Chief of a Springer book series entitled Web-Scale Workflow and Analytics. He has served as general/program chair/co-chair for over 10 research conferences in his specialty. He was the creator and founder of the Web Services Challenge (WS-Challenge) an initiative (and specialized infrastructure) that evaluates software engineering techniques in the area of web service composition. The WS-Challenge was the first of 4 other service composition challenges. In 2012, he co-authored the book entitled Semantic Web Services; Advancement through Evaluation that details experiences from all the service composition evaluation initiatives. Dr. Blake's scholarly activities have been funded by more than \$10 million in sponsored research awards from various government and commercial organizations (e.g. AFRL, AFOSR, DARPA, Department of Education, FAA, NIH, NSF, IBM, MITRE, and SAIC). In industry, Dr. Blake spent 6 years prior to joining academia working as a software architect, technical lead, and expert developer with General Electric, Lockheed Martin, General Dynamics, and The MITRE Corporation. Concurrent with his faculty appointment, he has continued as an expert-level systems consultant in the intersection of information technology and software engineering supporting the Federal Aviation Administration, the Department of Justice, the Department of Defense, and several legal firms. Dr. Blake is an ACM Distinguished Scientist and a Sr. Member of the IEEE.

ACADEMIC EXPERIENCE

Aug 2015 – present	Nina Henderson Provost
	Executive Vice President for Academic Affairs
	Distinguished University Professor of Systems and Software Engineering (with tenure)
	Electrical and Computer Engineering and Neuroengineering (concurrent) College of Computing & Informatics, College of Engineering & College of Medicine
	Drexel University
July 2012 – Aug 2015	Vice Provost for Academic Affairs and Dean of the Graduate School Professor of Computer Science (with tenure)
	Professor of Electrical and Computer Engineering (concurrent) Professor of Human Genetics (concurrent)
	College of Arts and Sciences/ College of Engineering/ Medical School University of Miami
July 2009 – July 2012	Associate Dean of Engineering, Research and Graduate Studies ¹ Professor of Computer Science and Engineering (with tenure) Dept. of Computer Science and Engineering, College of Engineering
	University of Notre Dame
August 1999 – July 2009	Department Chair & Inaugural Director of Graduate Studies (2007-2009) Associate Professor (with tenure) (2005-2009) Assistant Professor (2000-2005)
	Adjunct Assistant Professor (1999-2000)
	Dept. of Computer Science, Georgetown College (Arts and Sciences) Dept. of Radiology (ISIS Center), School of Medicine (by courtesy)
	Georgetown University

Research Areas: Software engineering, adaptive workflow, Internet computing, service-oriented computing, service-oriented architecture, and software-as-a-service and its applications

PROFESSIONAL EXPERIENCE

January 2007 to present	<i>Expert-level System Architect, Cleared Solutions, Inc</i> Consulting R&D Manager and Expert-level Systems Architect Department of Defense
	Worked directly with the Deputy Associate Director developing enterprise transformation policy and implementation plans in the defense sector.
January 2006 to Jan 2007	Software Engineering SME, Advanced Information Services Department of Justice

¹ Hired as Associate Dean for Strategic Initiatives but advanced to Associate Dean for Research on 12/2009 (i.e. significant increase in responsibility). This promotion extended my strategic development roles to also include College-wide research administration and oversight of graduate programs.

	Worked directly with the Division Chief in defining agency-wide software engineering lifecycles, practices, and training.
September 1999 to Jan 2007	Lead Software Systems Consultant, The MITRE Corporation
	Center for Innovative Informatics (CI2) and Center for Advanced Aviation System Development (CAASD)
	(40 hours a week until September 2000, then 1 day/week)
	Worked as an expert-level systems consultant for the Federal Aviation Administration, Department of Defense, and Department of Navy
December 2004 to April 2005	Expert Witness, Perkins-Coie, Washington DC
	High profile case for the Government Accountability Office
July 2003 to September 2006	Lead Software Process Consultant, Imaging Science and Information Systems Research Center (ISIS) , Washington DC
	Develop Requirements Engineering approaches to be used for component-based software in the bio-medical domain
January 2001 to March 2001	Expert Witness, Ken Lazarus and Associates , Washington DC High Profile Corporate Case
April 1998 to October 1999	Sr. Computer Scientist / Technical Lead
	General Dynamics (formerly Trident Data Systems), Oakton, VA (40 hours/week)
September 1997 to April 1998	Associate Software Architect/ Sr. Software Engineer
	Lockheed Martin Mission Systems, Gaithersburg MD (40 hours/week)
May 1994 to September 1997	Software Engineer/ Sr. Software Engineer Consultant (promoted 2/96)
	Lockheed Martin Information Systems, Orlando, FL and Atlanta, GA (40 hours/ week)

EDUCATION

PhD Information and Software Engineering 2000

Research Areas: Workflow, Agent-Based Architectures, Software Systems Engineering **Dissertation:** Agent-Based Workflow Modeling for Distributed Component Configuration & Coordination **Advisors:** Hassan Gomaa and Prasanta Bose George Mason University, Fairfax, VA

Master of Science in Electrical Engineering 1997

Minor in Software Engineering Graduate Certificate in Object-Oriented Analysis and Design Mercer University, Atlanta, GA

Bachelor of Electrical Engineering 1994

Georgia Institute of Technology, Atlanta, GA

PAPER AWARDS AND RECOGNITIONS

Best Student Paper Award, IEEE Int. Conf. on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE'12)

Top 100 Most Downloaded Paper in IEEE Digital Library for the Month (Nov 2010, Dec 2010, Oct/Nov 2013)

Top 10 Most Downloaded Paper in *IEEE Internet Computing* (Nov 2010 – Nov 2012, April&May2012/Jan2013 (#1))

Best Paper Nominee, IEEE International Conference on Services Computing (2008)

Best Transaction Paper of 2003, IEEE Transactions on Education, (Oct 2004, Awarded at FIE 2004)

Top 5 Most Viewed Article, Information Systems and E-Business Management, (Feb 2005), Annals of Software Engineering, (May 2004 – Feb 2005)

Best Mini-Track Paper (Best Paper Finalist), Mini-Track on Web Services and Workflow, 2004 Hawaii International Conference on Systems Science (HICSS-37), (Jan 2004)

Top Workshop Paper Invited for Publication in Information Systems and E-Business Management, Workshop on Agents and E-Commerce, International Conference on Electronic Commerce, (Oct 2003)

RESEARCH HONORS, AWARDS, & HIGHLIGHTS

2010 Recognized as an ACM Distinguished Scientist (Only Top 10% of the Membership Worldwide) 2008 Appointed to the IEEE Distinguished Visitors Program as a Distinguished Lecturer 2007 One of 10 2007 Emerging Scholars featured in Diverse: Issues in Higher Education 2006 Invited organizer of the 2006 National Academies, "Frontiers in Engineering" Symposium 2006 Invited speaker at the IBM Websphere Live! For Service-Oriented Architecture 2005 Nominated and Competitively Selected Participant, National Academy of Science, "Frontiers in Science" Symposium/Recognition 2004 Nominated and Competitively Selected Participant, National Academy of Engineering, "Frontiers in Engineering" Symposium/Recognition 2003 Outstanding Alumnus Award for the School of Information Technology, George Mason Univ. 2003 Nationally Recognized and Named the Most Promising Engineer/Scientist in Industry US Black Engineer and Information Technology Magazine and Lockheed Martin Corp 2002 Joint Appointment to the Dept. of Radiology (Informatics), School of Medicine, Georgetown Univ. 2002 MITRE Corporation Featured Author Recognition 2002 MITRE Corporation Knowledge Management Award Recipient 2002 Appointed to MITRE's Information Management Technical Area Advisory Team (Leading the MITRE's corporate direction in Information Management for their \$40 Million Research Program) 2001 Oak Ridge Associated Universities, Ralph E. Powe Junior Faculty Enhancement Award 2000 European Agents Systems Summer School Scholarship 2000 NSF Fellowship for Autonomous Agents 2000, Barcelona Spain 2000 Bechtel Co. Academic Excellence Fellowship 1999 National Society of Black Engineers Fellowship Awardee 1999, 2000 National Society of Black Engineers TorchBearer Scholar 1998 to 2000 George Mason University Doctoral Fellowship 1989 to 1994 NACME Academic Scholarship

PROFESSIONAL ACCOMPLISHMENTS

2016 Trailblazer Award- Georgia Institute of Technology Alumni Association

2013 Selected as one of the 50 Most Powerful Black Executives in South Florida

2012 St. Albert the Great Lecturer, Providence College - "Race, Religion, and Technology"

2012 Notre Dame Black Alumni Hesburgh Diversity Lecture Series Award

2012 Recognized as the "2012 Pioneer of the Year" by the National Society of Black Engineers

2011, 2013 Selected as one of the 50 Most Important African-Americans in Technology

2011 Chair, CRA's Coalition to Diversify Computing (CDC)

2009 First African-American tenured Full Professor in the College's History (ND College of Engineering) 2007 First African-American Department Chair at Georgetown University

2005 Youngest African-American at the time of Tenure in a Computer Science Department (as known to date)

2003 Elevated to Senior Member of the IEEE Computer Society

2002 Appointment as Interim Director of Georgetown University's Minority Mentoring Program

2002 MITRE Corporation- Annual Diversity Award

1996 Lockheed Martin Engineering Leadership Development Program Graduate

1996 General Electric Edison Engineering Program Graduate

1994 Omega Psi Phi Fraternity- Omega Man of the Year (Delta Kappa Chapter, Georgia Tech)

1993 Omega Psi Phi Fraternity- Outstanding Service Award (Delta Kappa Chapter, Georgia Tech)

1993 J. Erskine Love Jr. Award (Georgia Institute of Technology's Philanthropic Service Award)

1992 Initiation into the ANAK Society (Georgia Institute of Technology's Highest Honor)

POPULAR MEDIA

"Humble Beginnings, Knack for Science Motivate University of Miami Vice Provost" Diverse Magazine, January 2013

"College: An impossible dream for Black males?"- Interview for The Miami Times article, September 2012

"Challenges in STEM Education", Featured Guest on Economic Outlook, WNIT (PBS), October 2010

"Black Computer Scientists in Academe: An Endangered Species" (invited and primary author with Dr. Juan Gilbert), *Chronicles of Higher Education*, September 2010

• Featured in ACM TechNews

"Pursuing a Lifelong Passion", Diverse: Issues in Higher Education, January 2007 Issue

• (Recognized among the Top 10 Emerging Scholars for 2007)

"It's Back to School for IT" CNet Perspectives (byline that I authored based on IBM collaborations)

• Featured on ACM Tech News: Timely News for IT Professionals (10/27/2006)

Coverage of the Georgetown/IBM Service-Oriented Architecture Summit and Curriculum Initiative that I organized in:

• InformationWeek, InfoWorld, Chronicles of Higher Education, ComputerWorld, and CNet/ZDNet

Georgetown Web site, "Agent of Change", July 2005

Washington Business Journal, "Small Firm Returns to DC to work with Georgetown" May 6-12, 2005 (Discusses our NSF STTR Phase I Award)

Featured in the Black Creativity Program Exhibit at the Chicago Museum of Science and Industry, January – March 2005

Georgetown University Press Release, "Professor to Attend National Engineering Symposium", August 2004

Georgetown Magazine, "Agent of Change", February 2004

National Action Council for Minorities in Engineering (NACME), "NACME Alum Wins Black Engineer of the Year Prize", April 2003

George Mason's Spirit Magazine, "Most Promising Engineer Balances Multiple Roles", May 2003

The Hoya, "GU Professor Named Most Promising in Industry", May 2003

The MITRE Corporation- Spotlight, "A Unique Blend of Research and Academics - He's Set the Bar High", January 2003

Broadside, "Leading By Example", March 1999

SCHOLARSHIP²

Books

- 1. National Academies Committee of the Computer Science and Telecommunications Board, "Report of a Committee on the Rising Computer Science Enrollments", *National Academies Press*, 2017
- 2. **Blake, M.B.**, Cabral, L., König-Ries, B., Küster, U., and Martin, D. (eds) "Semantic Web Services: Advancement through Evaluation", *Springer*, 2012
- National Academies Committee of the Computer Science and Telecommunications Board, "Report of a Workshop of Pedagogical Aspects of Computational Thinking", *National Academies Press*, 2011
- 4. National Academies Committee of the Computer Science and Telecommunications Board, "Report of a Workshop on The Scope and Nature of Computational Thinking", *National Academies Press*, 2010
- 5. National Academies Committee of the Naval Studies Board, "Information Assurance for Network-Centric Naval Forces, *National Academies Press*, 2010
- 6. National Academies Organizing Committee for the Frontiers of Engineering 2006, "Frontiers of Engineering: Reports on Leading-Edge Engineering from the 2006 Symposium" *National Academies Press*, 2007
- 7. Cleary, K... Blake, M.B., et al, "IGSTK Image-Guided Surgery Toolkit: An Open Source C++ Software Library", *Insight Consortium*, 2007

REFEREED BOOK CHAPTERS

- 8. Weise, T., **Blake, M.B.**, Bleul, S. "Semantic Web Service Composition: The Web Service Challenge Perspective", *Handbook on Web Services, Springer (to appear)*
- 9. Blake, M.B., and <u>Bartalos, P.</u> "Service-Oriented Software Engineering Lifecycles: Methodologies and Operations for Adaptability in Enterprise Settings", in *Engineering Adaptive and Resilient Computing Systems*, *CRC Press*, 2013
- <u>Bansal, A., Bansal, S.K.</u>, Blake, M.B., Bleul, S, and Weise, T. "Web Services Challenge: Discovery and Composition of Semantic Web Services", in "Semantic Web Services: Advancement through Evaluation", Springer, 2012
- Blake, M.B. "Semi-Automated Lifecycles for Eliciting Requirements for Service-Oriented Environments" in Service Life Cycle Tools and Technologies: Methods, Trends, and Advances, IGI Global, pp 22-34, 2011
- Blake, M.B. and Gomaa, H. "Object-Oriented Modeling Approaches to Agent-Based Workflow Services" in Software Engineering for Large-Scale Multi-Agent Systems II, Lecture Notes in Computer Science, Vol. 2940, pp. 111-129, Springer-Verlag, 2004

² Publications co-authored with undergraduate students are annotated with "**", Postdocs and graduate/undergraduate students who I advise are underlined.

JOURNAL AND REFEREED MAGAZINE ARTICLES

- 1. <u>Jarrett, J.</u>, **Blake, M.B**., and <u>Saleh, I.</u> "Crowdsourcing, Elastic Systems, and Human-Enhanced Computing A Survey", *IEEE Transactions on Services Computing*, (to appear)
- 2. Bouguettaya, A., et al, "A Service Computing Manifesto: The Next Ten Years", Communications of the ACM (to appear)
- 3. <u>Bartalos, P., Wei, Y.</u>, **Blake, M.B.**, <u>Saleh, I.</u>, Damgacioglu, H., and Selik, N. "Modeling Energy-Aware Web Services and Applications", *Journal of Network and Computer Applications*, Vol 67, C, pp 86-98, May 2016
- <u>Bansal, S., Bansal, A., Gupta, G., Blake, M.B.</u>, "Generalized Semantic Web Service Composition" Service-Oriented Computing and Applications Journal, Volume 10, No. 2, pp 111-133, Springer, June 2016
- 5. <u>Wei, Y.</u> and **Blake, M.B.** "Proactive Virtualized Resource Management and Provisioning for Service Workflows in the Cloud", *Computing*, Vol 98, No. 5, pp 523-538, *Springer*, May 2016
- Huang, G., Ma, Y., Liu, X., Lu, X., Luo, Y., and Blake, M.B., "Model-Based Automated Navigation and Composition of Complex Service Mashups", *IEEE Transactions on Services Computing*, Vol. 8, No. 3, pp 494-506, May/June 2015
- 7. Bertolini, A., **Blake, M.B.**, Mehra, P, Mei, H., and Xie, T. "Software Engineering for Internet Computing: Internetware and Beyond", *IEEE Software*, Vol. 32, No. 1, pp 35-37, Jan/Feb 2015 (short paper and special issue introduction)
- ** Blake, M.B., <u>Saleh, I., Wei, Y Schlesinger, I., Yale, Loehr, A.</u>, and Liu, X. "Shared Service Recommendations from Requirement Specifications: A Hybrid Syntactic and Semantic Toolkit", *Information and Software Technology*, Vol. 57, pp 392-404, *Elsevier*, January 2015
- 9. Claypool, M., Armitage, G., and **Blake, M.B.** "Networked Games in the Midst of the Clouds", *IEEE Internet Computing*, Vol. 18, No. 3, July/Aug, 2014
- <u>Saleh, I.</u>, Kulczycki, G., Blake, M.B., Wei, Y. "Formal Methods for Data-Centric Web Services: A Case Study", *International Journal of Services Computing*, Vol. No.1, December 2013 (invited from ICWS 2013)
- Tan, W., Blake, M.B., <u>Saleh, I.</u>, Dustdar, S. "Social-Network-Sourced Big Data Analytics", *IEEE Internet Computing*, Vol. 17, No. 5, pp. 62-69, Sept/Oct 2013 (Top 100 Most Downloaded in IEEE Xplore (#55 Oct 2013, #52 Nov 2013), Featured in *Computing Now* and *IEEE STC on Social Networking*)
- Ma, Y., Liu, X., Huang, G. and Blake, M.B., "Data-Driven Synthesis of Multiple Recommendation Patterns to Create Web Mashups", *Science China Information Sciences*, co-published with *Springer*, Vol. 56, No.8, pp 1-16, August 2013
- 13. Liu, X., Zhao, Q., Huang, G., Mei, H., Teng, T., and **Blake, M.B**., "iMashup: A Mashup-based Framework for Services Composition", *Science China Information Sciences*, co-published with *Springer*, May 2013
- <u>Wei, Y.</u> and Blake, M.B. "Adaptive Web Services Monitoring in Cloud Environments" International Journal of Web Portals, Vol. 5, No. 1, pp 15-27, Jan 2013 (invited and refereed from the Best Papers of WETICE 2012)
- 15. ** Blake, M.B., <u>Cummings, D.J., Bansal, A.</u>, and <u>Kona, S.</u> "Workflow Composition of Service Level Agreements for Web Services", *Decision Support Systems*, Vol. 53, pp. 234-244, 2012

- Blake, M.B., <u>Remy, S., Wei, Y.</u>, Howard, A. "Robots on the Web: Service-Oriented Computing and Web Interfaces", Special Issue: Towards a WWW for Robots, *IEEE Robotics and Automation*, Vol. 18, No 2., pp 33-43, 2011
- 17. <u>Remy, S.</u> and **Blake, M.B.** "Distributed Service-Oriented Robotics", *IEEE Internet Computing*, Vol. 15, No. 2, pp 70-74, March/April 2011
- ** Blake, M.B. and <u>Nowlan, M.F.</u> "Knowledge Discovery in Services (KDS): Aggregating Software Services to Discover Enterprise Mashups", *IEEE Transactions on Knowledge and Data Engineering*, Vol. 23, No. 6, pp 889-901, June 2011
- <u>Wei, Y.</u> and Blake, M.B. "Service-Oriented Computing and Cloud Computing: Challenges and Opportunities", *IEEE Internet Computing*, Vol. 14, No. 6, pp 72-76 Nov/Dec 2010 (Top 3 Most Accessed from Nov 2010 - Jan 2011)
- Ezenwoye, O., Blake, M.B., Dasgupta, G. Fong, L., Kalayci, S., Masoud Sadjadi, S. and, Viswanathan, B. "Managing Faults for Distributed Workflows over Grids", *IEEE Internet Computing*, Vol. 14, No. 2, pp 84-88, March/April 2010
- 21. Schall, D., Blake, M.B., Dustdar, S. "Programming Human and Software-Based Web Services", *IEEE Computer,* Vol 43, No. 7, pp 82-86, July 2010
- 22. Blake, M.B., Tan, W., <u>Rosenberg, F.</u> "Composition as a Service" , *IEEE Internet Computing*, Vol. 14, No. 1, pp. 78-83, Jan/Feb 2010
- 23. <u>Saleh, I.</u>, Kulczyski, G., **Blake, M.B.**, "Demystifying Data-Centric Web Services", *IEEE Internet Computing*, Vol. 13, No. 5, pp 86-90, September/October 2009
- 24. ** Blake, M.B. and <u>Butcher-Green, J.D.</u> "Agent-Customized Training for Human Learning Performance Enhancement", *Computers & Education*, Vol. 53, pp 966-976, Nov. 2009
- 25. Blake, M.B. "Knowledge Discovery in Services", *IEEE Internet Computing*, Vol. 13, No. 2, pp. 88-91, March/April 2009
- 26. ** Blake, M.B. and <u>Nowlan, M.F.</u> "Taming Web Services from the Wild", *IEEE Internet Computing* Vol. 12, no. 5, 2008, pp. 62-69, Sept/Oct 2008
- Blake, M.B. and Singh, L. "Software Engineering for Web Services Workflow Systems", Special Issue on Software Engineering for Service-oriented Architecture, *International Journal on Software Engineering and Knowledge Engineering*, Vol. 18, No. 2, pp 157-178, March 2008
- 28. Doswell, J.T., **Blake, M.B.** and Gilbert, J. "Guest Editorial: A New Era for Intelligent Virtual Instructors", *International Journal on Virtual Reality*, Vol. 7, No 1, March 2008
- 29. Blake, M.B and Huhns, M. "Web-Scale Workflow: Integrating Distributed Services", *IEEE Internet Computing*, Vol. 12, no. 1, 2008, pp. 55-59 Jan/Feb 2008
- Blake, M.B. "Decomposing Composition: Service-Oriented Software Engineers", Special Issue on Realizing Service-Centric Software Systems, *IEEE Software*, Vol. 24, No. 6, pp 68-77, Nov/Dec 2007
- ** <u>Nowlan, M.F.</u> and **Blake, M.B.** "Agent-Mediated Knowledge Sharing for Intelligent Services Management ", Special Issue on Enterprise Distributed Computing Models and Implementation, *Information Systems Frontiers*, Vol. 9, No. 4, pp 411-421, Springer, September, 2007 (SCC2007 invited for fast-track review)
- 32. **** Blake, M.B.** and <u>Nowlan, M.F.</u> "Recommending Web Services via an Agent Federation", Special Issue on New Tendencies for Web Services and Multi-agent Systems, *International Transactions*

on Systems Science and Applications, Vol. 3, No. 2, August 2007, pp 133-144 (Invited for fast-track review)

- ** Blake, M.B., <u>Kahan, D.R.</u>, and <u>Nowlan, M.F.</u> "Context-Aware Agents for User-Oriented Service Discovery and Execution" Special Issue on Context-Based Web Services, *Distributed and Parallel Databases*, Vol. 21, No. 7, pp 39-58, February 2007
- 34. Blake, M.B., Cheung, W., and Wombacher, A. "Web Services Discovery and Composition Systems" *International Journal of Web Services Research*, Vol. 4, No. 1, pp iii viii, January 2007 (short paper and editorial)
- Gary, K., Blake, M.B., Ibanez, L., Gobbi, D., Aylward, S., and Cleary, K. "IGSTK: An Open Source Software Toolkit for Image-Guided Surgery", Special Issue on Clinical Software Engineering, *IEEE Computer*, Vol. 39, No. 4, pp 46-53, April 2006³
- ** Blake, M.B., Singh, L., Williams, A.B., <u>Norman, W.</u>, and <u>Sliva, A.L.</u> "A Component-Based Data Management and Knowledge Discovery Framework for Aviation Studies", *Information Technology and Web Engineering*, Vol. 1, No. 1, pp 74-88, January 2006, Idea Press (*inaugural issue, by invitation*)
- L. Ibanez, J. Jomier, D. Gobbi, R. Avila, M. B. Blake, H. Kim, K. Gary, S. Aylward, and K. Cleary. "IGSTK: A State Machine Architecture for an Open Source Software Toolkit for Image-Guided Surgery Applications" *Insight Journal*, Aug 2005
- Williams, A.B., Padmanabhan, A., and Blake, M.B. "Experimentation with Local Consensus Ontologies with Implications to Automated Service Composition", *IEEE Transactions on Knowledge* and Data Engineering, Vol. 17, No. 7, pp 1-13, July 2005
- Blake, M.B. and Gomaa, H. "Agent-Oriented Compositional Approaches to Services-Based Cross-Organizational Workflow", Special Issue on Web Services and Process Management, *Decision Support Systems*, Vol. 40, No. 1, pp 31-50, July 2005
- Blake, M.B. "Integrating Large-Scale Group Projects and Software Engineering Approaches for Early Computer Science Courses", *IEEE Transactions on Education*, Vol. 48, No. 1, pp. 63-72, February 2005, IEEE Press
- Blake, M.B., Parsons, S., and Payne, T. "The Synergy of Electronic Commerce, Agents, and Semantic Web Services", *The Knowledge Engineering Review*, Vol. 19, No. 2, pp 175-180, June 2004
- 42. Blake, M.B. "A Specification Language and Service-Oriented Architecture to Support Distributed Data Management", *Software: Practice and Experience,* Vol. 34, No. 11, pp 1091-1117, September 2004, John Wiley and Sons
- Blake, M.B. "Coordinating Multiple Agents for Workflow-Oriented Process Orchestration", *Information Systems and E-Business Management Journal*, Eds. J. Becker and M. Shaw, Vol. 1, No. 2, pp 387-405, December 2003, Springer-Verlag
- Blake, M.B. "Agent-Based Communication for Distributed Workflow Management using Jini Technologies", *International Journal on Artificial Intelligence Tools*, Vol. 12, No.1, pp. 81-99 March 2003, World Scientific Publishers
- Blake, M.B. "A Student-Enacted Simulation Approach to Software Engineering Education" IEEE Transactions on Education, Vol. 46, No. 1, pp.124-133, February 2003, IEEE Press (Best Transaction Paper of 2003)

³ The author list is as submitted and prioritized by contribution (IEEE Computer later grouped authors by affiliation)

- 46. Blake, M.B. and Gini, M. "Agent-Based Approaches to B2B Electronic Commerce", International Journal on Electronic Commerce, Vol. 7, No. 1, pp 5-6, Oct. 2002, M.E. Sharpe
- 47. Blake, M.B., Hamilton, G., and Hoyt, J. "Using Component-Based Development and Web Technologies to Support a Distributed Data Management System", Special Issue on Object-Oriented Web-Based Software Engineering, Annals of Software Engineering, Vol. 13, No. 1, pp 13-34, June 2002, Kluwer Academic Publishers
- 48. **Blake, M.B.** "AAAI 2002 Workshops: Agent-Based Technologies for B2B Electronic Commerce", *Al Magazine*, Vol. 23, No. 4, pp. 113-114, December 2002, AAAI Press
- 49. Blake, M.B., "Agent-Oriented Approaches to B2B Interoperability", *The Knowledge Engineering Review*, Vol. 16, No. 4, pp 383-388, December 2001, Cambridge University Press (invited)
- 50. Blake, M.B. and Liguori, P. "An Autonomous Decentralized Architecture for Distributed Data Management and Dissemination", *IEICE/IEEE Joint Special Issue on Autonomous Decentralized Systems, IEICE Transactions on Information and Systems,* Vol. E84-D, No.10, pp 1394-1398, October 2001

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51. Qiao, X. et al "A Survey of Applications Research on Information Centric Networking" *Journal of Network and Computer Applications (under review)*

EDITORIALS AS EDITOR-IN-CHIEF

- 52. Blake, M.B. "Navigating into the Future" IEEE Internet Computing, March/April 2015
- 53. **Blake, M.B.** "Crowd Services: Human Intelligence + Web Services" *IEEE Internet Computing,* May/June 2015
- 54. Blake, M.B. "An Internet of Things for Healthcare" IEEE Internet Computing, July/August 2015
- 55. Blake, M.B. "Worrying about Wearables" IEEE Internet Computing, Sept/October 2015
- 56. Blake, M.B. "Automating Friendship" IEEE Internet Computing, November/December 2015
- 57. Blake, M.B. "Professions for Web 10.0" IEEE Internet Computing, January/February 2016
- 58. Blake, M.B. "Reflecting on Software Engineering Research for Internet Computing" *IEEE Internet Computing,* March/April 2016
- 59. Blake, M.B. "Spanning Web Capabilities over Clouds" IEEE Internet Computing, May/June 2016
- 60. **Blake, M.B.** "Customizing and Sizing the Internet for IoT Devices." *IEEE Internet Computing,* July/Aug 2016
- 61. Blake, M.B. "On Pikachu and Security and Privacy." IEEE Internet Computing, Sept/Oct 2016
- 62. Blake, M.B. "Monetizing Autonomous Control" IEEE Internet Computing, Jan/Feb 2017
- 63. Blake, M.B. "Twenty Years in the Making" IEEE Internet Computing, May/June 2017

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- 1. Jarrett, J. and **Blake, M.B.**," Investigating Aspects of Platform Growth on Crowdsource Driven Recommendation Services", *IEEE International Conference on Services Computing (SCC2018)* (under review)
- Hemmings-Jarrett, K, Jarrett, J., and Blake, M.B., "Exploratory Research of the Impact of User Participation on Sentiment Analysis of Social Issues", *European Conference on Information* Systems (ECIS 2018)
- Gary, K.A. and Blake, M.B., "C-PLAD-SM: Extending Component Requirements with Use Cases and State Machines", Software Engineering Research, Management and Applications, 93-106, 2018
- 4. Hemmings-Jarrett, K, Jarrett, J., and **Blake, M.B.**," Evaluation of User Engagement on Social Media to Leverage Active and Passive Communication", *IEEE International Conference on Cognitive Computing (ICCC 2017)*
- Jarrett, J., Blake, M.B. "Interoperability and Scalability of Worker-Job Matching across Crowdsourcing Platforms", Proceedings of the 25th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE2017), June 2017
- <u>Jarrett</u>, J., Blake, M.B. "Reusable Meta-Models for Crowdsourcing Driven Elastic Systems", IEEE International Conference on Information Reuse and Integration (IRI2016), Pittsburgh, PA, July 2016 (invited)
- Jarrett, J., Blake, M.B. "Using Collaborative Filtering to Automate Worker-Job Recommendations for Crowdsourcing Services", IEEE International Conference on Web Services (ICWS2016), July 2016 (to appear)
- Jarrett, J., Blake, M.B. "Towards a Distributed Worker-Job Matching Architecture for Crowdsourcing" Proceedings of the 25th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE2016), June 2016 (to appear) (39% Acceptance Rate)
- Jarrett, J., Ferreira-Da-Silva, L., Mello, L., Andere, S., Oliveira da Cruz, G., and Blake, M.B. "Self-Generating a Labor Force for Crowdsourcing - Is Worker Confidence a Predictor of Quality?" Third IEEE Workshop on Hot Topics in Web Systems and Technologies (HotWeb2015)
- <u>Clarke, D., Jarrett, J.</u>, and **Blake, M.B**. "Playing the Odds: Decision Support and Risk Assessment in an Elastic Framework" *IEEE International Conference on Collaboration and Internet Computing*, Hangzhou, China, October 2015
- 11. Liu, Yi., Liu, X., Ma, Y., Liu, Yunxin, Zheng, Z., Huan, G., and **Blake, M.B.,** "Characterizing RESTFul Web Services Usage on Smartphones: A Tale of Native Apps and Web Apps", *IEEE International Conference on Web Services (ICWS2015)*, July 2015, (17.4% Acceptance Rate)
- Huang, G., Ma, Y., Liu, X., Luo, Y., Lu, X., Blake, M.B., Assisting Navigation and Complementary Composition of Complex Service Mashups, TSC Paper Presentation Track, *IEEE International Conference on Web Services (ICWS2015)*, July 2015 (Selected for Presentation from IEEE TSC Journal Papers)
- Jarrett, J., Blake, M.B., and <u>Saleh, I.</u> "Collaborative Infrastructure for On-Demand Crowdsourced Tasks" Proceedings of the 24th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE2015), June 2015 (39% Acceptance Rate)
- Bergenti, F., Blake, M.B., Cabri, G., and Wajid, U., "Adaptive Computing that Enhances Collaboration in Networked Environments", *Proceedings of the 24th IEEE International Conference Enabling Technologies: Infrastructure for Collaborative Enterprises* IEEE Press, June 2015

- Jarrett, J., Saleh, I., Blake, M.B., Malcolm, R., <u>Thorpe, S.</u>, Grandison, T "Combining Human and Machine Computing Elements for Analysis via Crowdsourcing", *IEEE CollaborateCom*, Miami, FL, December 2014
- 16. Blake, M.B. and <u>Saleh, I.</u>, "Formal Methods for Preserving Privacy for Big Data Extraction Software" *NSF Workshop on Big Data Security and Privacy*, Dallas, Texas, Sept 2014 (short paper)
- 17. <u>Jarrett, J.</u>, <u>Saleh, I.</u>, **Blake, M.B.**, <u>Thorpe, S.</u>, Grandison, T., "Mobile Services for Enhancing Human Crowdsourcing with Computing Elements", *IEEE Mobile Services 2014 (short paper)*
- <u>Nassar, M., Jarrett, J., Saleh, I.</u>, and **Blake, M.B**. "Generating Real-Time Profiles of Runtime Energy Consumption for Java Application", *International Conference on Software Engineering* and Knowledge Engineering, July 2014
- 19. <u>Clarke, D.,</u> **Blake, M.B.,** and <u>Saleh, I.</u> "Modelling Service Workflow Outcomes by Assessing the Underlying Message Flows" *Proceedings of the 23rd IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE2014),* June 2014
- 20. Wajid, U., **Blake, M.B.**, and <u>Saleh, I.</u> Adaptive Computing for Agents and Dynamic Collaborative Environment", *Proceedings of the 23rd IEEE International Conference Enabling Technologies: Infrastructure for Collaborative Enterprises* IEEE Press, June 2014
- 21. <u>Thorpe, S</u>., Grandison, T., and **Blake, M.B.** "Cloud Computing Log Forensics- the New Frontier", *IEEE Southeastern Conference*, 2014
- McCune, R., Purta, R., Madey, G, Madey, A., <u>Wei, Y.</u>, **Blake, M.B.**, "Investigations of DDDAS for Command and Control of UAV Swarms with Agent-Based Modeling "*Winter Simulation Symposium*, 2013
- <u>Saleh, I.</u>, Kulczycki, G., and **Blake, M.B.**, and Wei, Y. "Static Detection of Implementation Errors Using Formal Code Specification" *International Conference on Software Engineering and Formal Methods (SEFM13), Lecture Notes in Computer Science*, LNCS 8137, pp 197-212, 2013 (Acceptance 21/58, 36%)
- 24. <u>Saleh, I.</u>, Kulczycki, G., and **Blake, M.B.**, and Wei, Y. "Formal Methods for Data-Centric Web Services: From Model to Implementation" *IEEE International Conference on Web Services (ICWS 2013)*
- 25. <u>Wei, Y.</u>, and **Blake, M.B.** "Decentralized Resource Coordination across Service Workflows in Cloud Environments", *Proceedings of the 22nd IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE2013), IEEE Press, Tunisia, June 2013*
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- Wei, Y., Blake, M.B., Madey, G. "An Operation-time Simulation Testbed for UAV Swarm Configuration and Mission Planning" International Conference on Computational Sciences (ICCS2013), (to appear)
- 28. <u>Wei, Y.</u>, Madey, G., **Blake, M.B.** "Agent-based Simulation for UAV Swarm Mission Planning and Execution", *Proceedings of the 2013 Agent-directed Simulation Symposium (ADS2013)*, April 2013
- 29. <u>Wei, Y.</u> and **Blake, M.B.** "Adaptive Service Workflow Configuration and Agent-based Virtual Resource Management in the Cloud", *IEEE International Conference on Cloud Engineering* (*IC2E2013*), *IEEE Press* (28% Acceptance Rate)

- Bartalos, P. and Blake, M.B. "Green Web Services: Modeling and Estimating Power Consumption of Web Services", IEEE International Conference on Web Services (ICWS 2012) (17% Acceptance Rate)
- 31. Bergenti, F., **Blake, M.B.**, Cabri, G., and Wajid, U. "Adaptive Computing for Enhanced Collaboration", *Proceedings of the 21st IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises,* IEEE Press, Toulousse, France June 2012
- 32. <u>Wei, Y.</u> and Blake, M.B. "An Agent-based Services Framework with Adaptive Monitoring in Cloud Environments", Proceedings of the 21st IEEE International Conference Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE 2012), IEEE Press, Toulousse, France, June 2012 Best Student Paper Award
- Madey, G., Blake, M.B., Poellabauer, C., Lu, H., McCune, R., and <u>Wei, Y.</u> "Applying DDDAS Principles to Command, Control and Mission Planning for UAV Swarms" *International Conference* on Computational Sciences (ICCS2012), Omaha, Nebraska, Procedia Computer Science (Elsevier), Volume 9, pp. 1177–1186, June 2012 (30% Acceptance Rate)
- Bartalos, P., Blake, M.B, and <u>Remy, S.</u> "Green Web Services: Models for Energy-Aware Web Services and Applications" *IEEE International Workshop on Knowledge and Service Technology* for Life, Environment, and Sustainability (KASTLES 2011), December 2011
- Bergenti, F., Blake, M.B., Cabri, G., and Wajid, U. "Agent-based Computing for Enterprise Collaboration – Agents and Services Interoperability", *Proceedings of the 20th IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises*, IEEE Press, Paris, France June 2011
- ** <u>Yale-Loehr, A., Schlesinger, I., Rembert, A.</u>, Blake, M.B., "Discovering Shared Services from Cross-Organization Software Specifications" "*IEEE International Conference on Services Computing,* July 2010 (18% Acceptance Rate)
- <u>Saleh, I.</u>, Kulczycki, G., and Blake, M.B., "Formal Specification and Verification of Data-Centric Service Composition" *IEEE International Conference on Web Services*, July 2010 (17.6% Acceptance Rate)
- 38. <u>Kona, S., Bansal, A</u>, **Blake, M.B.**., and Gupta, G. "Weaving Functional and Non-Functional Service Level Agreements for Service Composition", *International Conference on Software Engineering and Knowledge Engineering (SEKE2010)* (33% Acceptance Rate)
- Saleh, I., Kulczycki, G., and Blake, M.B., "A Reusable Model for Data-Centric Web Services", Formal Foundations of Reuse and Domain Engineering, 11th International Conference on Software Reuse (ICSR2009) Lecture Notes in Computer Science, Springer, September 2009 (Acceptance 28/68)
- ** Blake, M.B., <u>Nowlan, M.F., Kona, S.</u>, <u>Bansal, A.</u> "Annotating UDDI Registries for Composite Services", ACM Symposium on Applied Computing (SAC 2009), Honolulu, Hawaii, March 2009 (34% Acceptance Rate)
- Kona, S., Bansal, A, Blake, M.B., and Gupta, G. "Generalized Semantics-based Service Composition", IEEE International Conference on Web Services (ICWS 2008), Beijing, China, September 2008 (16% Acceptance Rate)
- Mitchell, S., Blake, M.B., Cunningham, D., and Gopalan, S. "A SOA-driven Content Discovery and Retrieval Approach", *IEEE International Conference on Electronic Commerce (CEC/EEE 2008)*, Washington, DC, July 2008
- ** Blake, M.B. and <u>Nowlan, M.F.</u> "Predicting Service Mashup Candidates Using Enhanced Syntactical Message Management", *IEEE International Conference on Services Computing (SCC 2008)*, Honolulu, Hawaii, July 2008 (18% Acceptance Rate) (Nominated for Best Paper)

- 44. <u>Kona, S., Bansal, A</u>, **Blake, M.B.**.,and Gupta, G. "Towards a Generalized Semantics-based Service Composition Approach", *IEEE International Conference on Services Computing (SCC 2008)*, Honolulu, Hawaii, July 2008) (short paper)
- 45. ** Blake, M.B. and <u>Cummings</u>, D.J. "Workflow Composition of Service Level Agreements", International Conference on Services Computing (SCC 2007), July 2007 (20% Acceptance Rate)
- ** <u>Nowlan, M.F.</u> and **Blake, M.B.** "Agent-Mediated Knowledge Sharing for Inter-organizational Service Management ", IEEE International Conference on Services Computing (SCC 2007), July 2007
- 47. ** Blake, M.B. and <u>Nowlan, M.F.</u> "A Web Service Recommender System using Enhanced Syntactical Matching", *IEEE International Conference on Web Services (ICWS 2007)*, July 2007
- ** Singh, L., <u>Beard, M.,</u> Getoor, L., and **Blake, M.B.,** "Visual Mining of Multi-Modal Social Networks at Different Abstraction Levels", 11th International Conference on Information Visualization, July 2007
- Cheng, P., Ibanez, L., Gobbi, D., Gary, K., Aylward, S., Jomier, J., Enquobahrie, A., Zhang, H., Kim, H.S., **Blake, M.B**., and Cleary, K. "The Image-Guided Surgery Toolkit IGSTK: An Open Source C++ Software Toolkit" *Proceedings of SPIE Medical Imaging*, February 2007.
- 50. **** Blake, M.B.**, <u>Sliva, A.L.</u>, zur Muehlen, M., and Nickerson, J. "Binding Now or Binding Later: The Performance of UDDI Registries", *IEEE Hawaii International Conference of System Sciences* (*HICSS-2007*), *Track on Technology and Strategies for Realizing Service-oriented Architectures* with Web services, January 2007
- 51. Blake, M.B. "A Lightweight Software Design Process for Web Services Workflows" 4th IEEE International Conference on Web Services (ICWS 2006) (16% Acceptance Rate, 48/300)
- Blake, M.B., Fado, D.H, and Mack, G.A. "Proactive Service Discovery and Execution using Intelligent Agents", 4th IEEE International Conference on Web Services (ICWS 2006) (Application Services and Industry Track) (33% Acceptance Rate (99/300)
- 53. ** <u>Kahan, D.R.</u>, <u>Nowlan, M.F.</u> and **Blake, M.B.** "Taming Web Services in the Wild", 4th IEEE International Conference on Web Services (ICWS 2006)) (Work-in-Progress Sessions) (40% Acceptance Rate (122/300)
- 54. ** <u>Nowlan, M.F., Kahan, D.R.</u>, and **Blake, M.B.** "Using Naming Tendencies to Syntactically Link Web Service Messages", in *Data Engineering Issues in E-Commerce and Services (DEECS)*, Lecture Notes in Computer Science, Vol. 4055, pp. 90-99, Springer-Verlag, June 2006 (30% Acceptance Rate, 15/47)
- 55. ** Blake, M.B., <u>Butcher-Green, J.D.</u>, and Doswell, J.T. "An Agent-Supported Multimodal Scaffolding Infrastructure", *IEEE International Conference on Advanced Learning Technologies* (*ICALT 2006*), Kerkrade, Netherlands (short paper) (<50% Acceptance Rate)
- 56. Mack, G.A., Fado, D.H., **Blake, M.B.**, and Widdows, D. "An Infrastructure for Automating Information Sharing in Analytic Collaboration" *2006 IEEE Aerospace Conference (to appear)*
- 57. Cheng, P., Zhang, J., Kim, H., Gary, K., **Blake, M.B.**, Gobbi, D., Aylward, S., Jomier, J., Enquobahrie, A., Avila, R., Ibanez, L., and Cleary, K. "IGSTK: Framework and Example Applications Using an Open Source Toolkit for Image Guided Surgery Applications", *SPIE Medical Imaging 2006*, San Diego, CA, February 2006
- 58. ** Blake, M.B., <u>Kahan, D.</u>, Fado, D.H., and Mack, G.A. "SAGE: Software Agent-Based Groupware Using E-Services" ACM GROUP 2005, Sanibel Florida, November 2005

- 59. Mack, G.A., Fado, D.H., and **Blake, M.B.** "Analytical collaboration with globally-distributed repositories" *IEEE International Symposium on Mass Storage Systems and Technology (LGBI'05)*, Sardinia, Italy, June 2005
- Blake, M.B., Fado, D.H., and Mack, G.A. " A Publish and Subscribe Collaboration Architecture for Web-Based Information", 14th ACM International World Wide Web Conference (WWW2005), Japan, May 2005 (Regular Papers + Posters, Less 30% Acceptance Rate)
- Blake, M.B., Cleary, K., Ibanez, L., Ranjan, S.R., and Gary, K. " Use Case-Driven Component Specification: A Medical Applications Perspective to Product Line Development", ACM Symposium on Applied Computing (SAC 2005), Software Engineering Track pp 1470-1477, Sante Fe, New Mexico, March 2005 (32% Acceptance Rate for the Track)
- Gary, K., Gannod, G., Koehnemann, H., and Blake, M.B. "Educating Future Software Professionals on Outsourced Software Development", *Proceedings of the American Society of Engineering Education (ASEE05)*, Portland, Oregon, June 2005
- 63. ** <u>Saez, G., Sliva, A.L.</u>, **Blake, M.B.** "Web Services-Based Data Management: Evaluating the Performance of UDDI Registries", *Proceedings of the IEEE International Conference on Web Services (ICWS 2004),* IEEE Press, pp 830-831, San Diego, CA July 2004
- Cleary, K., Ibanez, L., Ranjan, S.R., and Blake, M.B. "IGSTK: A Software Toolkit for Image-Guided Surgery Applications", Proceedings of the 18th International Conference on Computer-Assisted Radiology (CARS2004), pp 473-479, Chicago, IL, June 2004 (Less than 50% Acceptance Rate)
- 65. Blake, M.B. "Forming Agents for Business Process Orchestration", Hawaii International Conference of System Sciences: Session on Web Services and Workflow: (HICSS-37), IEEE Press, (10 pages), Big Island, Hawaii, January 2004 Best Minitrack Paper (HICSS Best Paper Finalist, Less than 10% of over 400 Accepted Papers)
- 66. **Blake, M.B.** "Enterprise Data Management in Research Organizations, Data the Way You Want It", *ACM Conference on Diversity in Computing*, pp 55-46, ACM Press, Atlanta, GA October 2003
- Williams, A.B., Padmanabhan, A., and Blake, M.B. "Local Consensus Ontologies for B2B-Oriented Service Composition", Proceedings of the 2nd ACM International Conference on Autonomous Agents and MultiAgent Systems (AAMAS2003), ACM Press, 647-654, Melbourne, Australia July 2003 (117/470) 25% Acceptance Rate
- Blake, M.B. and Williams, A.B. "Developmental and Operational Processes for Agent-Oriented Database Navigation for Knowledge Discovery", *Proceedings of the 15th International Conference* on Software Engineering and Knowledge Engineering, pp 216-224, San Francisco, CA, July 2003 (70/156) 44% Acceptance Rate
- Blake, M.B. and Gomaa, H. "Object-Oriented Modeling Approaches to Agent-Based Cross-Organizational Workflow Systems", *International Workshop for Software Engineering for Large Multi-Agent Systems (SELMAS'03)* in conjunction with the *International Conference on Software Engineering*, Portland, Oregon, May 2003
- Blake, M.B. "An Architecture to Support Distributed Data Retrieval in Specialized Formats", Proceedings of the 2003 ACM International Symposium on Applied Computing (SAC2003), Special Track on Information Access and Retrieval, ACM Press, pp 803-810, Melbourne, Florida March 9-12 (to appear) (200/525) 38% Acceptance Rate
- Blake, M.B. "Using Agent Control and Communication in a Distributed Workflow Information System", in *Cooperative Information Systems*, Lecture Notes in Computer Science, 2519 Springer 2002, pp 163-178, (*Proceedings of the 10th International Conference on Cooperative Information Systems (CoopIS 2002)*, Irvine, California, October 27-November 1) (29/111) 26% Acceptance Rate

- 72. Blake, M.B. "Using Specification-Driven Concepts for Distributed Data Management and Dissemination", Proceedings of the 2002 ACM International Conference on Information and Knowledge Management, ACM Press, pp 629-631, McLean, VA, November 2002 ~27% Acceptance Rate
- 73. Blake, M.B. " An Agent-Based Cross-Organizational Workflow Architecture in Support of Web Services", Proceedings of the WETICE2002: The 2002 Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises, IEEE Press, pp 176-182 Pittsburgh, PA, June 2002 (to appear) ~40% Acceptance Rate
- 74. ** Blake, M.B. and <u>Cornett, T.</u> "Teaching an Object-Oriented Software Development Lifecycle in Undergraduate Software Engineering Education", *Proceedings of the IEEE Conference on Software Engineering Education and Training (CSEET2002)*, IEEE Computer Society Press, pp 234-241, Northern Kentucky, Ohio, February 2002 41% Acceptance Rate
- 75. Blake, M.B. "Agent-based Workflow Configuration and Management of On-line Services", *Proceedings at the International Conference on Electronic Commerce Research (ICECR-4)*, pp 567-588, Dallas, TX, November 2001 (~69/120) ~60%
- 76. Blake, M.B. "Rule-Driven Coordination Agents: A Self-Configurable Agent Architecture", 5th IEEE International Symposium of Autonomous Decentralized Systems (ISADS2001) with an Emphasis on Electronic Commerce, IEEE Press, pp 271-278, Dallas, TX March 2001 (46/102) 45% Acceptance Rate
- 77. Blake, M.B. and Liguori, P. "An Automated Client-Driven Approach to Data Extraction using an Autonomous Decentralized Architecture", 5th IEEE International Symposium of Autonomous Decentralized Systems (ISADS2001) with an Emphasis on Electronic Commerce, IEEE Press, pp 311-319, Dallas, TX March 2001 (46/102) 45% Acceptance Rate
- Blake, M.B. "A Development Approach for Workflow-Based E-Commerce using Reusable Distributed Components", 2000 Americas Conference on Information Systems (AMCIS2000) (Track on Workflow Technology and E-Commerce Applications), AISeL Press, 568-573, Long Beach, CA August 2000
- Blake, M.B. "WARP: An Agent-Based Process and Architecture for Workflow-Oriented Distributed Component Configuration", Proceedings of the 2000 International Conference on Artificial Intelligence (Session on Software Agent-Oriented Workflow) (IC'Al2000), CSREA Press, pp 205-213, Las Vegas, NV, June 2000) (152/420) 36% Acceptance Rate
- 80. Blake, M.B. and Bose P., "An Agent-Based Approach to Alleviating Packaging Mismatch", *Proceedings of the Fourth International Conference on Autonomous Agents (AGENTS 2000),* ACM Press, pp 64-69, Barcelona, Spain, June 2000 (48/200) 24% Acceptance Rate
- Blake, M.B. "SABLE: An Agent-Based Library and Environment to Consolidate Enterprise-Wide Data Oriented Simulations", *Proceedings at the 2nd International Conference on Enterprise Information Systems (ICEIS2000)*, Stafford, UK, July 2000 (Accepted, but unable to attend)

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 Abdellatif, M., Saleh, I., Blake, M.B., "JPrivacy: A Java Privacy Profiling Framework for Big Data Applications", International Workshop on Collaborative Big Data, co-located with IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing, Miami, FI, 2014

- 83. Saleh, I., Kulczycki, G., and **Blake, M.B.** "Towards the Implementation of Bug-Free Database Applications: A Formal Methods Approach" *SIGMOD RDSS Workshop (to appear)*
- Wei, Y., Blake, M.B., and Saleh, I. "Adaptive Resource Management for Service Workflows in Cloud Environments", 2nd International Workshop on Workflow Models, Systems, Services and Applications in the Cloud (CLOUDFLOW2013) in conjunction with 27th IEEE International Parallel & Distributed Processing Symposium (IPDPS 2013), IEEE Press, (to appear)
- <u>Bartalos, P.</u> and **Blake, M.B.**, "Engineering Energy-Aware Web Services Towards Dynamically-Green Computing", Workshop on Engineering Service-Oriented Applications (WESOA 2011), Springer
- Saleh, I., Kulczyski, G.,and Blake, M.B., "Specification and Verification of Web Service Transactions" IEEE Workshop on Formal Methods in Services and Cloud Computing @ ICWS2011, July 2011
- 87. Blake, M.B. "In Vivo Internet Computing: Bionic Web Surfing". *IEEE Internet Computing*, 15(2): 4-6, Jan/Feb 2011
- Blake, M.B., Bleul, S., and Weise, T. "WSC-10: Web Services Composition and Evaluation", Proceedings of the IEEE International Conference on Service-Oriented Computing and Applications (SOCA 2010), December 2010
- 89. Panetto, H., Cardoso, J., and Blake, M.B. "COOPIS'10 PC Co-chairs Message" OTM Conferences (1) pp 6-7, 2010
- Bansal, S., Bansal, A., and Blake, M.B, "Trust based Dynamic Web Service Composition using Social Network Analysis", IEEE International Workshop on Business Applications for Social Network Analysis (BASNA 2010), August 2010 (20% Acceptance Rate)
- 91. <u>Goarany, K.</u>, Kulczycki, G., and **Blake, M.B** "Mining Social Tags to Predict Mashup Patterns", SMUC workshop @ CIKM 2010 (to appear)
- 92. <u>Saleh, I.</u>, Kulczyski, G.,and **Blake, M.B.**, "Specification and Verification of Web Service Transactions" *IDAR Symposium at SIGMOD 2010*, July 2010
- Bansal, A., Blake, M.B., Kona, S, Bleul, S., et al. "WSC-09: A Quality of Service Web Services Challenge", Proceedings of the IEEE International Conference on E-Technology, E-Commerce, and E-Services, Vienna, Austria, July 2009
- Bansal, A., Blake, M.B., Kona, S, Jaeger, M.C., et al. "WSC-08: The Web Services Challenge", Proceedings of the IEEE International Conference on E-Technology, E-Commerce, and E-Services, Washington, DC, July 2008
- Bansal, A., Kona, S., Blake, M.B., and Gupta, S. "An Agent-based Approach for Composition of Semantic Web Services", 2008 Workshops on Enabling Technologies for Collaborative Enterprises (WETICE2008), Rome, Italy
- Bergenti, F., Blake, M.B. and Cabri, G. "Agent-Based Computing for Enterprise Collaboration Synergies of Agents and Services", 2008 Workshops on Enabling Technologies for Collaborative Enterprises (WETICE2008), Rome, Italy
- 97. ** <u>Nowlan, M.F.</u> and **Blake, M.B.** "Intelligent Agent Communication and Collaboration for Web Services Management", 2007 Workshops on Enabling Technologies for Collaborative Enterprises (WETICE2007), Paris, France
- Blake, M.B., Cheung, W.H.K., Jaeger, M.C., and Wombacher, A. "WSC-07: Evolving the Web Services Challenge", Proceedings of the IEEE International Conference on E-Technology, E-Commerce, and E-Services, Tokyo, Japan, July 2007

- 99. Bergenti, F., **Blake, M.B.** and Cabri, G." Agent-based Computing for Enterprise Collaboration Agent-Based Workflow", *Proceedings of the WETICE2007: The 2007 Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises*, IEEE Press, Paris, France June 2007
- 100. **** Blake, M.B.**, <u>Butcher-Green, J.D.</u>, and Doswell, J. T. "Agent-Mediated Customized Training and Human Learning Performance Enhancement" *International AAMAS Workshop on Agent-Based Human Learning and Entertainment, May 2007*
- 101. ** Doswell, J.T., **Blake, M.B.**, Butcher-Green, J.: Mobile Augmented Reality System Architecture for Ubiquitous e-Learning. International Workshop on Wireless and Mobile Technologies in Education (WMTE 2006), pp. 121-123, Athens, Greece, November 2006
- 102. Gary, K., Kokoori, S., David, B., Otoom, M., **Blake, M.B.**, and Cleary, K. "An ArchitectureValidation Toolset for Ensuring Patient Safety in an Open Source Software Toolkit for Image-guided Surgery Applications" *The Workshop on Open Source Software at the 9th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI'06)*, Copenhagen, Denmark, October 2006.
- 103. Blake, M. B. and Doswell, J.T. "Intelligent Agents that Enhance Human Learning". SALT New Learning Technologies Conference. August 2006
- 104. **Blake, M. B.** "Personal Learning Assistant Agents for the Business Process Domain". *IEEE International Conference on Advanced Learning Technologies,* July 2006
- 105. Blake, M.B., Cheung, W.H.K., Jaeger, M.C., and Wombacher, A. "WSC-06: The Web Services Challenge", Proceedings of the IEEE International Conference on E-Technology, E-Commerce, and E-Services, San Francisco, CA, June 2006
- 106. Blake, M. B. and Doswell, J.T. "Context-Aware Augmented Reality System (CAARS)". SALT New Learning Technologies Conference. February 2006.
- 107. Ibanez, L., Jomier, J., Gobbi, D., Avila, R., **Blake, M. B.,** Kim, H., Gary, K., Aylward, S., and Cleary, K. "IGSTK: A State Machine Architecture for an Open Source Software Toolkit for Image-Guided Surgery Applications" *Workshop on Open Source Software in conjunction 8th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI'05)*, Palm Springs, CA, October 2005.
- 108. Blake, M.B., Cleary, K., Kim, H.S., Ranjan, S.R., Gary, K., Jomier, J, Aylward, S., and Ibanez, L., "Component-Based Design and Development for Robust Medical Applications", *High Confidence Medical Device Software and Systems (HCMDSS) Workshop*, Philadelphia, PA, June 2005
- 109. Blake, M.B., Fado, D.H., and Mack, G.A. "Combining a Publish and Subscribe Collaboration Architecture with XQuery Approaches", Second International Workshop on XQuery Implementation, Experience and Perspectives (XIME-P 2005) co-located with SIGMOD2005, Baltimore, MD June 2005 (to appear)
- 110. Blake, M.B., Tsui, K.C., and Wombacher, A. "The EEE-05 Challenge: A New Web Service Discovery and Composition Competition", Proceedings of the IEEE International Conference on E-Technology, E-Commerce, and E-Services, Hong Kong, March 2005
- 111. Bergenti, F., **Blake**, **M.B.** and Cabri, G." Agent-based Computing for Enterprise Collaboration – Human-Agent and Agent-Agent Collaboration", *Proceedings of the WETICE2004: The 2004 Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises*, IEEE Press, Modena, Italy June 2004
- 112. Blake, M.B. "Forming Agents for Workflow-Oriented Process Orchestration", International Conference of Electronic Commerce: Workshop on Agents and Electronic Commerce, pp 47-52,

Pittsburgh, PA October 2003 (Top Paper, Invited for submission and fast-track review at the Information Systems and E-Business Management Journal)

- 113. Narasimhan, P., **Blake, M.B**., and Cabri, G. "WRSM 2003 PC Co-Chairs' Message", *OTM Workshops 2003* p 870, November 2003
- 114. Blake, M.B. and Cabri, G." Agent-based Computing for Enterprise Collaboration What Agents Can Learn from Human Collaboration?", *Proceedings of the WETICE2003: The 2003 Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises*, IEEE Press, Linz, Austria June 2003
- 115. Blake, M.B. and Gomaa, H. "Object-Oriented Modeling Approaches to Agent-Based Cross-Organizational Workflow Systems", Workshop on Software Engineering for Large-Scale Multi-Agent Systems (SELMAS 2003) in conjunction with the International Conference on Software Engineering (ICSE2003), (8 pages) Portland, Oregon, May 2003
- 116. Blake, M.B. " B2B Electronic Commerce: Where do Agents Fit In? ", *Proceedings of the AAAI-2002 Workshop on Agent Technologies for B2B E-Commerce (AAAI Press, Technical Report WS-02-01, ISBN 1-57735-154-1),* pp 1-8, Edmonton, Alberta, Canada, July 28, 2002
- 117. ** Blake, M.B., Cornett, T., and Piquado, T. " Using Intelligent Agents in Conjunction with B2B Interoperability ", Proceedings of the 2001 International Conference on Artificial Intelligence (Session on Agent-Oriented Software Architectures for B2B) (IC'Al2001), CSREA Press, pp 538-545, Las Vegas, NV, June 2001 (invited) **
- 118. **Blake, M.B.** " Innovations in Agent-Based Business-to-Business Interoperability" Workshop on Agent-Based Approaches to B2B at the Fifth International Conference on Autonomous Agents (AGENTS 2001), Montreal, Canada, May 2001
- 119. Blake, M.B. "KOJAC: Implementing KQML with Jini to Support Agent-Based Communications in Emarkets", AAAI-2000 Workshop on Knowledge-based Electronic Markets at the 17th National Conference on Artificial Intelligence, Ed. Tim Finin and Benjamin Grosof (AAAI Press, Technical Report WS-00-04, ISBN 1-57735-119-3), pp 1-8, Austin, TX August 2000
- 120. Blake, M.B. " SABLE: Agent Support for the Consolidation of Enterprise-Wide Data-Oriented Simulations", Workshop on Agents In Industry at the 4th International Conference on Autonomous Agents (AGENTS2000), Barcelona, Spain, June 2000

PATENTS

System for and Method of Using Component-Based Development and Web Tools to Support A Distributed Data Management System, Application No. 10/301,289

(Primary Inventor with Co-Inventors at The MITRE Corporation)

INTERVIEWS AND LETTERS IN JOURNALS OR MAGAZINES

Dixon, R. and Schneider, L.M. "Bots: Behind the Scenes", *Scripps Howard Foundation Wire* ,Special Interest Column on Electronic Commerce Technologies *(Interview)* Printed Birmingham Post Herald, Technology Section, May, 23, 2001 Printed Ventura County Star, Technology Section, May 21, 2001

Blake, M.B. "Validity of the Uncommon IT&E Degree Often Questioned", *Electronic Engineering Times* (*EE Times*), p 52, May 18, 1998, CMP Media, Inc. Press (*Commentary*)

EDITED JOURNALS AND PROCEEDINGS

Wajid, U., **Blake, M.B.** and Saleh, I. (2014) Ed.: *Adaptive or Agent-Based Computing for Enterprise Collaboration,* Proceeding on the International Conference on Collaborative Technologies and Infrastructures (WETICE-2013)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2013) Ed.: *Adaptive or Agent-Based Computing for Enterprise Collaboration,* Proceeding on the International Conference on Collaborative Technologies and Infrastructures (WETICE-2013)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2012) Ed.: *Adaptive or Agent-Based Computing for Enterprise Collaboration,* Proceeding on the International Conference on Collaborative Technologies and Infrastructures (WETICE-2012)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2011) Ed.: *Agent-Based Computing for Enterprise Collaboration,* Proceeding on the International Conference on Collaborative Technologies and Infrastructures (WETICE-2011)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2010) Ed.: *Agent-Based Computing for Enterprise Collaboration*, Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2010)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2009) Ed.: *Agent-Based Computing for Enterprise Collaboration*, Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2009)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2008) Ed.: *Agent-Based Computing for Enterprise Collaboration,* Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2008)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2007) Ed.: *Agent-Based Computing for Enterprise Collaboration,* Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2007)

Bergenti, F., **Blake**, **M.B.** and Cabri, G. (2006) Ed.: *Agent-Based Computing for Enterprise Collaboration*, Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2006)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2005) Ed.: *Agent-Based Computing for Enterprise Collaboration,* Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2005)

Bergenti, F., **Blake, M.B.** and Cabri, G. (2004) Ed.: *Agent-Based Computing for Enterprise Collaboration,* Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2004)

Blake, M.B. and Cabri, G. (2003) Ed.: Agent-Based Computing for Enterprise Collaboration, Workshop Proceedings of the Workshops on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE-2003)

Blake, M.B. et. al (2003) Ed.: *Workshop on Agent-Based Middleware,* Workshop Proceedings of the On The Move Federated Conferences (OTM2003)

Blake, M.B. et. al (2003) Ed.: *Electronic Commerce, Agents, and Semantic Web Services,* Workshop Proceedings of the International Conference on Electronic Commerce (ICEC-2003), Pittsburgh, PA

Blake, M.B. and Gini, M. (2002) Eds:, *International Journal on Electronic Commerce*, Special Issue on Agent-Based Approaches to B2B Electronic Commerce, M.E. Sharpe Press

Blake, M.B. (2002) Ed.: Agent Technologies for B2B Electronic Commerce, Papers from the AAAI-2002 Workshop, Technical Report, WS-02-01, AAAI Press, ISBN 1-57735-154-1, Menlo Park, CA

Blake, M.B. (2001) Ed.: Agent-Based Approaches to B2B Technologies, Workshop Proceedings of the 5th International Conference on Autonomous Agents (Agents 2001), Montreal, Canada

Arabnia, H., **Blake, M.B.**, et al. (2001) Eds.: Proceedings 2001 International Conference on Artificial Intelligence, Las Vegas, NV, USA, June 23-25, 2001, Vol. 2, CSREA Press, ISBN 1-892512-79-3

REFEREED SOFTWARE SYSTEMS DEMONSTRATIONS AND DEVELOPMENT

Blake, M.B. "WARP: Workflow Automation through Agent-Based Reflective Processes ", *Proceedings at the 5th International Conference on Autonomous Agents*, ACM Press, Montreal, Canada, May 2001 (software demonstration)

This multi-agent architecture coordinates a workflow consisting of distributed components. The architecture accepts workflow specification in the Unified Modeling Language (UML) as Rational Rose Model Files. The workflow specifications must be captured using WARP-specific semantics and models. These models are translated into XML-based instructions for use by the WARP agents.

DISSERTATION/THESIS

Blake, M.B. (2000) Agent-based Workflow Modeling for Distributed Component Configuration and Coordination, Ph.D Dissertation, George Mason University

Blake, M.B. (1997) The Applicability of an Internet Scheduling Application in Electronic Commerce, Master's Thesis, Mercer University (project work at Georgia Institute of Technology)

NONREFEREED PUBLICATIONS AND TECHNICAL REPORTS

Blake, M.B. "Towards the Optimization of Coordination in Multiple Software Agent Systems", *Proceedings at the 25th Annual National Society of Black Engineers Conference*, Kansas City, Missouri, March 1999

Blake, M.B., Mangham, S., Jones, M. "The Re-architecture of Mainframe Systems, GPS: A Practical Solution in System Development", *Proceedings at the 24th Annual National Society of Black Engineers Conference*, March 1998

Blake, M.B. "Digital Design Implementation of CORDIC Arithmetic", Undergraduate Research Opportunities Program (UROP), *Technical Report, Georgia Institute of Technology*, December 1992 (Under Direction of Dr. David Schimmel)

GRADUATE RESEARCH COMPETITIONS

Blake, M.B. "Software Component Composition for Distributed Workflow Management Systems", *Technical Symposium in Computer Science Education SIGCSE 2000 (also ACM National Research Competition)* Austin, Texas, March 2000 (short paper and presentation)

Blake, M.B. "An Approach to Automated Workflow Configuration", AT&T Research Symposium, Florham Park, NJ, October 1999 (Regional ACM Research Competition, nominated for Nationals)

EXTERNAL FUNDING (FUNDED CAREER TOTAL: \$12 MILLION+)

NSF-CNS: Pervasive Systems for Post-Calamity Intelligence Processing, National Science Foundation, **\$285,000**, (to be re-submitted)

NSF: Adaptive Scaffolds for Effective Instruction of Programming Techniques, National Science Foundation, **\$240,000**, (to be re-submitted)

Modeling the World of Work and Learning, Bill and Melinda Gates Foundation, **\$100,000**, co-PI, Sept 2016-Aug 2017

NSF-LS-AMPS: Greater Philadelphia Louis Stokes for Minority Participation, National Science Foundation, **\$2,069,265**, PI, Sept 2016- Aug 2019

NSF-BPEC: FACTS: Foundations of Achievement through Computational Thinking Skills, National Science Foundation, **\$90,000**, (One-year Planning Grant Awarded), Sub-award PI, Sept 2014- Aug 2015

NSF-Collaborative Research: SBES Alliance: Atlantic Coast Social, Behavioral, and Economic Sciences Alliance, National Science Foundation, Collaborative PI, **\$276,000** August 2012 – July 2015

FEF-McKnight Funds: Foundational Support for Graduate and Postdoctoral Fellowships, Florida Education Fund, **\$600,000**, PI, August 2012- June 2017

GAANN Fellowships in Computer Science and Engineering at the University of Notre Dame II, Department of Education, **\$667,000** (entire project **\$1.2 Million**) PI, April 2012 – April 2015

Dynamic Predictive Simulations of Agent Swarms, AFOSR, **\$200,000**, co-PI (PI: Greg Madey) October 2011-2013

NSF-CCLI Phase I: A Composable Hardware/Software Architecture for Instruction on Wireless Systems and Networks, National Science Foundation (NSF), **\$180,000**, co-PI (PI: Poellabauer), March 2010 – Feb 2013

GAANN Fellowships in Computer Science and Engineering at the University of Notre Dame, National Science Foundation (NSF), **\$440,000**, co-PI (PI: Bowyer), June 2009 – June 2012

NSF-IIS: Web Service Discovery and Composition Competition (WSC-2009), National Science Foundation (NSF), **\$33,000**, sole PI, July 2009 - July 2011

NSF-IIS: Web Service Discovery and Composition Competition (WSC-2008), National Science Foundation (NSF), **\$25,000**, sole PI, March 2008 - July 2010

NSF-IIS: Web Service Discovery and Composition Competition (WSC-2007), National Science Foundation (NSF), **\$40,000**, sole PI, March 2007 - March 2008

NSF-HRI: Exploiting Teleoperative Knowledge for Robot Learning, National Science Foundation (NSF), **\$800,000**, Collaborative PI, August 2007-July 2011

NSF-ENG: Intelligent Instruction Systems using Augmented Reality, National Science Foundation (NSF) STTR – Phase II, **\$500,000**, PI with J. Doswell of Juxtopia, LLC, December 2006 - December 2010 (*Collaboration with BMW-Greenville*)

REU Supplements: Intelligent Instruction Systems using Augmented Reality, National Science Foundation (NSF) ENG, **\$12,000**

Open Source Software for Image-Guided Surgery Applications, National Institute of Health (NIH), **\$1,500,000**, Co-Investigator, January 2007 - December 2010

NSF-EHR: Storyboard Computing: Popularizing Computing to the Mainstream, National Science Foundation (NSF) BPC-DP, **\$600,000**, sole PI, December 2006- December 2011

REU Supplements: Storyboard Computing: Popularizing Computing to the Mainstream, National Science Foundation (NSF) BPC-DP, **\$67,000**, sole PI, December 2007- December 2011

High Performance Computing Innovation Service Portal: Part A Study (HPC-ISP), DARPA, **\$750,000**, co-PI with Brian Schott, University of Southern California, ISI Center, August 2006 – December 2007

SGER: Virtual Instructors Pilot Research Group (VIPRG), National Science Foundation (NSF), **\$50,000**, sole PI, August 2006 - February 2008

Agent-Supported Human Learning Performance Enhancement, Computing Research Association (CRA), **\$6,500**, sole PI, (Support for Jerome Butcher-Green and Robert Browning) August 2006- June 2007

Georgetown/IBM Service-Oriented Architecture Forum, IBM Corporation, \$5,000, sole PI, September 2006

Context-Based Service Discovery and Composition, MITRE Sponsored Research-Innovation Grant **\$20,000**, PI, February 2006- July 2006 (Only 4 grants awarded from over 60 proposal submissions)

Travel Award to for my Research Group to attend the ACM Richard W. Tapia Conference on Diversity in Computing, TAPIA Sponsors, **\$4,000**, sole PI, November 2005

NSF-IIS: Web Service Discovery and Composition Competition, National Science Foundation (NSF), **\$47,000**, sole PI, August 2005 - August 2007

NSF-ENG: Intelligent Instruction Systems using Augmented Reality, National Science Foundation (NSF) STTR – Phase I, **\$100,000**, PI with J. Doswell of Juxtopia, LLC, July 2005-July 2007 (*Collaboration with BMW-Greenville*)

Agent-Mediated Workflow between Humans and Services, Air Force Research Lab (AFRL) Subcontract to SAIC Corporation, BAA-04-10-IFKA, **\$63,000**, sole PI, (*Total Award ~\$700,000*) January 2005- July 2006

Component-Based Software Engineering for Image-Guided Surgery Applications, National Institute of Health (NIH) STTR – Phase II, **\$750,000**, Co-Investigator, September 2004-September 2006

Evaluating the Impacts of Internet Dynamism on UDDI Mechanisms and Frameworks, Computer Research Association (CRA-W), **\$2,000**, sole PI, September 2003-September 2004

Using Intelligent Agents to Determine Trends and Correlation in NAS Datasets, Federal Aviation Administration Subcontract to The MITRE Corporation (CAASD), **\$145,568**, sole PI, October 2001 - October 2003

An Adaptive Architecture for Electronic Market System Development, Oak Ridge Associated University (ORAU)/ Ralph E. Powe Junior Faculty Research Enhancement Grant, **\$10,000**, sole PI, June 2001 - June 2002

INTERNAL FUNDING

Georgetown/IBM Service-Oriented Architecture Forum, Georgetown College and Georgetown Graduate School, **\$1,000**, sole PI, September 2006

Hardware Support for the Agent-Based Software Engineering Research Group, Georgetown University Graduate School (Competitive Infrastructure Grant), **\$3,700**, sole PI, March 2004 – March 2005

Modeling Efficiency into Intelligent Distributed Systems Integration, Georgetown University Graduate School (Junior Faculty Fellowship), **\$8,000**, sole PI, September 2004 - December 2004

Using Intelligent Agents to Determine Trends and Correlation, Georgetown University Graduate School, **\$8,500**, sole PI, May 2003- August 2003

Interim Director of the Minority Mentoring Program, Office of the Provost, Georgetown University, **\$10,000**, sole PI, August 2002 - August 2003

Using Intelligent Software Agents in E-business, Georgetown University Graduate School, **\$1,500**, sole PI, December 2000 - June 2002

EQUIPMENT AND SOFTWARE AWARDS

B2B Simulation Space for Airline Transactions, GigaSpaces, Inc, \$10,000 (software licenses), sole PI, February 2002 - February 2003

Object-Oriented Tools for Software Engineering/E-Commerce Development, IBM/Rational Corporation, ~\$240,000 (100 software licenses), sole PI, January 2000 - January 2004

KEYNOTES, INVITED TALKS, INVITED PRESENTATIONS

Invited Panelist - "Internet, Web and Edge Computing" Third IEEE Workshop on Hot Topics in Web Systems and Technologies (HotWeb 2015), Washington, DC, November 2015

Invited Keynote - "Web-Scale Workflow and Analytics" International Conference on Identification, Information & Knowledge in the Internet of Things (IIKI 2015), Beijing Normal University, Beijing, China, October 2015

Invited Panelist - "Convergence of Cloud Computing and Big Data: Making Big Social and Human Impact" International Conference on Web Services, New York City, NY, July 2015 (with Dr. Peter Chen, Carnegie Mellon University and Dr. Henning Schulzrinne, Columbia University)

Invited Speaker - "Web-Scale Workflow and Analytics" University of Cyprus, Nicosia, June 2015

Invited Speaker - "Web-Scale Workflow and Analytics" Florida International University, April 2015

Invited Keynote - "Web-Scale Workflow and Analytics" CollaborateCom 2014, Miami, Florida, October 2014

Invited Keynote - "Global Graduate Program Partnerships" EBIB 2014, Panama City, Panama, May 2014

Invited Panelist - "*Taking the Administrative Path*" and "*Promotion from Associate to Full*" CMD-IT/CDC Academic Careers Workshop, Northwestern University, Chicago, IL, March 2014

Invited Keynote - "Web-Scale Workflow and Analytics" InternetWare 2013, Changsha, China, September 2013

Invited Panelist - "*Taking the Administrative Path*" and "*Promotion from Associate to Full*" CMD-IT/CDC Academic Careers Workshop, Northwestern University, Chicago,IL, April 2013

St. Albert The Great Endowed Lecturer - "Race, Religion, and Technology", Providence College, Providence, RI, November 2012

Invited Speaker - "Attaining Tenure and Promotion", Quality Education from Minorities, Las Vegas, NV, November 2012

Invited Speaker - "Service-oriented Computing and Cloud Computing", Warner Robbins AFB, Warner Robbins, GA, October 2012

Invited Speaker - "Attaining Tenure and Promotion", Quality Education from Minorities, Las Vegas, NV, November 2011

Invited Speaker - "Service-oriented Software Engineering", Baylor University, Waco, Texas, Nov 2011

Invited Speaker - "Service-oriented Software Engineering", Washington University, St. Louis, MO, July 2011

Invited Speaker - "Service-oriented Software Engineering", Department of Computer Science, University of Miami, Miami, FL, May 2011

Invited Speaker - "Taking the Administrative Path", 2011 ACM TAPIA Conference on Diversity in Computing, San Francisco, CA, April 2011

Invited Speaker - "*Research Entrepreneurship*", 2011 National Society of Black Engineers Conference, St. Louis, MO, March 2011

Invited Speaker - "Attaining Tenure and Promotion", College of Engineering, University of Southern California, Los Angeles, CA, February 2011

Invited Speaker - "Service-oriented Software Engineering", Department of Computing Science, Emory University, Atlanta, GA, February 2011

Invited Speaker - "Service-oriented Software Engineering", University of North Carolina-Charlotte, Charlotte, NC, January 2011

Invited Speaker - "Attaining Tenure and Promotion", Quality Education for Minorities, Atlanta, GA, November 2010

Invited Speaker - "The Need for Computer Scientists in a Bold New World", STEM Symposium, Ivy Tech Community College, October 2010

Invited Speaker - "*Religion, Race, and Technology*", Hesburgh Lecture Series, Notre Club of Chicago, Chicago, Illinois, June 2010

Keynote Speaker - "*The Need for Computer Scientists in a Bold New World*", SACNAS - Advancing Hispanics/Chicanos & Native Americans in Science, Regional Meeting, Brandeis University, Boston, Mass, April 2010

Invited Speaker - "*Tenure and Promotion*", ADMI Conference, Jackson State University, Jackson, MS, April 2010

Invited Speaker - "*Religion, Race, and Technology*", Hesburgh Lecture Series, Notre Club of Detroit, Detroit, Michigan, March 2010

Invited Speaker - "*Tenure and Promotion*", Minority Faculty Development Workshop, MIT, Boston, Mass, March 2010

Invited Speaker - "The Need for Computer Scientists in a Bold New World", University of Chicago, November 2009

Invited Speaker - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering", University of Chicago, November 2009

Invited Speaker - "The Need for Computer Scientists in a Bold New World", Fort Valley State University, October 2009

Keynote Speaker - "*The Need for Computer Scientists in a Bold New World*" NSF STARS Alliance Celebration, Florida State University, Tallahassee, FL, Aug 2009

Invited Speaker - "*Research Entrepreneurship*" African-American Researchers in Computer Science (AARCS) Seminar, Microsoft Research, Seattle, Washington, July 2009

Invited Speaker (IEEE-DVP) - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering" University of Memphis, Memphis, Tennessee, April 2009

Invited Speaker (CRA-DLS) - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering" Georgia Southwestern University, April 2009 Invited Speaker (IEEE-DVP) - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering" IEEE Chapter- Long Island, NY, April 2009

Invited Speaker - "*Being Faculty: A View from the Trenches*", SuperComputing 2008: Broadening Participation Track, Austin, Texas, November 2008

Invited Speaker - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering" University of Notre Dame, South Bend, Indiana, November 2008

Invited Speaker - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering IBM- Industry Solutions Lab, Hawthorne, PA, November 2008

Invited Speaker - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering Drexel University, Philadelphia, PA, November 2008

Invited Speaker - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering Auburn University, Auburn, AL, October 2008

Invited Speaker - "Service-Oriented Computing: A New Generation for Web-Based Software Engineering Clemson University, Clemson, SC, September 2008

Keynote Speaker - "Being Faculty: A View from the Trenches", African-American Computer Science Researchers Conference, Spelman University, Atlanta, GA, July 2008

Invited Speaker - "What is the Matrix?", University of South Carolina, Columbia, SC, January 2008

Invited Speaker - "Next Generation Integration of Distributed Software Systems", Virginia Polytechnic Institute, Blacksburg, VA, January 2008

Invited Speaker - "*Next Generation Integration of Distributed Software Systems*", Rensselaer Polytechnic Institute, Troy, NY, January 2008

Invited Speaker - "Next Generation Integration of Distributed Software Systems", Lockheed Martin Advanced Technology Lab, Cherry Hill, NJ, December 2007

Invited Speaker - "*Next Generation Integration of Distributed Software Systems*", Virginia Tech, Northern Virginia Center, Falls Church, VA, November 2007

Invited Keynote Speaker - "*Next Generation Integration of Distributed Software Systems*", International Workshop on Middleware for Web Services, Annapolis, MD, October 2007

Invited Speaker - "What's Hot and What's Not in Information Technology", National Blacks in Government Conference, New York City, NY, August 2007

Invited Plenary Speaker/Panelist - "Service Engineering and Software Engineering", International Conference on Web Services, Salt Lake City, Nevada, July 2007

Invited Speaker - "*Next-Generation Integration of Distributed Software Systems*", University of Maryland-Baltimore County, Baltimore, MD, May 2007

Invited Speaker - "*Next-Generation Integration of Distributed Software Systems*", University of Notre Dame, South Bend, IN, April 2007

Invited Speaker - "Next-Generation Integration of Distributed Software Systems", University of South Carolina, Columbia, SC, April 2007

Invited Speaker - "*Diversifying Science*", College of Charleston and Burke High School, Charleston, SC, Jan 2007

Invited Speaker - "*Exploiting Technology for Inter-organizational Collaboration*", National Blacks in Government Conference, New York City, NY, August 2006

Invited Speaker - "Service Level Agreements for Global Combat Support Systems", The MITRE Corporation, McLean, VA, August 2006

Invited Talk - "*Reality Check – An Academic Viewpoint of SOA*", IBM WebSphere Live! For Service-Oriented Architecture, Ritz-Carlton, Washington, DC, April 2006

Invited Talk - "Context Aware Agent-Supported Augmented Reality Systems", BMW-America, Greenville, SC, March 2006

Invited Panelist - "*The Future of the IT Workforce*", Department of Computer Science, George Mason University, Fairfax, VA, February 2006

Invited Talk - "Adaptive Software Systems Integration", Department of Computer Science, University of Central Florida, Orlando, FL, January 2006

Invited Speaker - "*Component-based Development for Radiology Applications*", Fraunhofer USA Center for Experimental Software Engineering, University of Maryland, College Park, MD, August 2005

Invited Speaker - "*Exploiting Technology for Business Process Modeling*", National Blacks in Government Conference, Washington, DC, August 2004

Invited Participant - "*IBM Semantic Web Technical Exchange Meeting*", IBM Research-Industry Solutions Lab (ISL), Hawthorne, NY, December 2003

Invited Keynote Speaker - "Integrating Outreach into your Information Systems' Research Program", The Ph.D Project, Information Systems Doctoral Student Association (ISDSA), Tampa, FL., August 2003

Invited Speaker - "Intelligent Automated Approaches for Knowledge Discovery: Agents, RDBMS, and Data Mining", Invited Technical Talk, Fannie Mae, Herndon, VA, December 2002

Invited Speaker - "*Knowledge Discovery in Databases and Data Mining*", Invited Technical Talk, Fannie Mae, 4250 Connecticut Ave, Washington, DC, December 2002

Invited Speaker - "Intelligent Automated Approaches for Post-Event Analysis: Agents, RDBMS, and Data Mining", Invited Technical Talk, MITRE-Center for Advanced Aviation System Development (CAASD) and the Federal Aviation Administration (FAA) AAR-500, The MITRE Corporation, McLean, VA., August 2002

Invited Speaker - "Distributed Data Management and Dissemination", Georgetown Department of Radiology, ISIS, Georgetown University, Washington, DC, June 2002

Invited Speaker - "*Run-Time Evolution- The Concept behind MRALD underlying the CAASD Repository System*", MITRE Technical Talk Series, The MITRE Corporation, McLean, VA., April 2002

Invited Panelist - "*New Professionals Track*", Black Engineer of the Year Conference, Baltimore, Md., (Other Panelist: Al Zollar, General Manager/Lotus Corporation, Greg Vaughn, Program Manager/Microsoft Corporation, Wilbur Payne, Chief Engineering/Army Corp of Engineers) February 2002

Invited Talk - "An Object-Oriented Software Engineering Approach to Agent Communication for Distributed Workflow", *Graduate Lecture Series*, Department of Computer and Electrical Engineering, Iowa City, Iowa, October 2001

Invited Talk - "An Introduction to Artificial Intelligence: An Agent Researchers Perspective", *Technical Lecture Series*, School of Information Technology, Georgia Southern University, Statesboro, GA, October 2001

Invited Talk - "Writing Technical Papers and Journals", 27th Annual National Society of Black Engineers Conference, Indianapolis, IN, March 2001 (also member of the Electrical Engineering Mentoring Panel)

Invited Talk - "An Approach to Automated Workflow Configuration Through the Composition of Distributed Invocation-Based Services", 5th International Conference on Reliable Software Technologies, Berlin, Germany, June 2000

Invited Talk - "Why should engineers write technical papers?", 26th Annual National Society of Black Engineers Conference, Charlotte, N.C, March 2000

Invited Talk - "Negotiation and Aggregation of Multiple Agent Software Systems", John D. Miles Lecture Series, University of Notre Dame, South Bend, Indiana, March 1999

Presentation - "Software Technology in the 21st Century: Development and Coordination Impacts to Multiple Agent Systems", *25th Annual National Society of Black Engineers Conference*, Kansas City, Missouri, March 1999

Moderator - "Choices after your first engineering degree", 25th Annual National Society of Black Engineers Conference, Kansas City, Missouri, March 1999

Invited Talk - "Why should engineers write technical papers?", 25th Annual National Society of Black Engineers Conference, Kansas City, Missouri, March 1999

Presentation - "Introduction to Dynamic Coordination in Multiple Agent Systems", *Invited Technical Lecturer*, Georgetown University, Washington, D.C., February 1999

TEACHING

COURSES

Fall 2012 – present Professor, University of Miami

Courses and Evaluations: ("Mean of All Scores" & "Overall Evaluation of Instructor")

Software Engineering (CSC531) – Spring 2013 (4.4/5.0 & 4.5/5.0) (Enrollment: 40 students) Independent Study (CSC670) – Spring 2013 (N/A) Software Engineering (CSC531) - Spring 2014 (4.3/5.0 & 4.3/5.0) (Co-instructor) (Enrollment: 40 students) Software Engineering (CSC431) – Fall 2014 (4.6/5.0 & 4.9/5.0) (Co-instructor) (Enrollment: 23 students) Independent Study (CSC670) – Fall 2014 (N/A) Independent Study (CSC670) – Spring 2015 (N/A)

Fall 2009 – Spring 2012

Professor, University of Notre Dame

Courses and Evaluations ("Composite of All Scores" & "Overall Effectiveness of Instructor"):

E-Technology (CSE 40613) - Spring 2010 (4.1/5.0 & 4.3/5.0) Software Engineering (CSE 40232) - Spring 2011 (4.1/5.0 & 4.1/5.0)

Fall 1999 – Spring 2009

Assistant to Associate Professor, Georgetown University

Courses and Evaluations (Overall Evaluation of Instructor):

Software Engineering (COSC 345) - Fall 1999 (4.50/5.0), Fall 2000 (4.29/5.0), Fall 2001 (4.56/5.0), Fall 2003 (4.20/5.0), Fall 2006 (4.15/5.0), Fall 2007 (3.8/5.0), Fall 2008 (4.2/5.0)

Software Engineering (COSC 345) - Listed as a "Class To Take" of only 21 selected campus-wide (1 of 2 from all Sciences), *The Hoya*, Georgetown's Student Newspaper , April 6, 2001

Software Engineering II (COSC 346) – Spring 2001 (4.75/5.0), Spring 2003 (4.80/5.0), Spring 2004 (5.0/5.0)

E-Commerce Sys Development (COSC 545/MGMT 630) - Spring 2002 (4.25/5.0), Spring 2005 (4.67/5.0)

Connected World: For Better or For Worse (Ignatius Seminar) (IDST 010) – Fall 2007 (4.8/5.0), Fall 2008 (4.7/5.0)

Computer Science II (COSC 072) – Spring 2001(4.14/5.0), Fall 2001 (4.78/5.0), Spring 2002 (3.56/5.0), Spring 2003 (3.75/5.0), Fall 2003 (4.0/5.0), Spring 2006 (3.0/5.0), Fall 2007 (3.50/5.0)

Service-Oriented Architecture (COSC 544) (co-instructor) - Spring 2008 (4.33/5.0)

Fall 2000/Spring 2000

Co-Instructor, George Mason University

Course: SWSE 620 Requirements Engineering With: Dr. Prasanta Bose (Spring 2000) and Dr. Hassan Gomaa (Fall 2000)

January 1997 to September 1997

Instructor/Trainer-Trainee, Lockheed Martin Advanced Concepts Center Course: Object Oriented Analysis and Design (OMT), OO Design Patterns

RESEARCH ADVISING⁵

POSTDOCTORAL FELLOWS

Peter Bartalos, PhD (2011-2012) (Software Engineer, Amadeus Software)

Sekou Remy, PhD (2010-2012) (Currently: Assistant Professor, Clemson University, IBM Research)

Srividya Kona, PhD (2007-2009) (Currently: Associate Professor, Arizona State University)

Ajay Bansal, PhD (2007-2009) (Currently: Assistant Professor, Arizona State University)

PHD STUDENTS (ADVISED OR CO-ADVISED)

Dr. Florian Rosenberg (Spring 2009) (IBM T.J. Watson, NY) "QoS-Aware Composition of Adaptive Service-Oriented Systems"

Dr. Iman Saleh Moustafa (Fall 2011) (Rosetta, Washington, DC -> University of Miami-> Intel Corp.) "Specification and Verification of Data-Centric Web Services"

Dr. Sean Thorpe (Fall 2012) (External Examiner) (University of Technology, Jamaica) "The Theory of a Cloud Computing Digital Investigation Using the Virtual Machine Hypervisor Kernel Logs"

Dr. Yi (David) Wei (Spring 2013) (Microsoft Corporation) "Monitoring, Configuration, and Resource Management of Service Workflows in Virtualized Clusters and Clouds"

Dr. Damian Clarke (Summer 2015) (South Carolina State University) "A Methodology for a Data-Driven Model and Approach for Content-Specific Assessment of Service Workflows"

Mr. Julian Jarrett (Spring 2017) "Worker-Job Recommendation for Mixed Crowdsourcing Systems: Algorithms, Models, Metrics, and SOA"

Mrs. Kimberly Hemming-Jarrett (Spring 2021) "Social Media and Data Analytics"

PHD STUDENTS (COMMITTEE MEMBERSHIP)

Ying Zhou, University of Notre Dame, 2013

Zhi Zhai, University of Notre Dame, 2013

Hoang Bui, University of Notre Dame, 2012

Nathan Regola, University of Notre Dame, 2012

MASTER STUDENTS (ADVISED OR CO-ADVISED)

⁵ All research prior to 2008 was conducted with undergraduates and postdoctoral fellows only. Georgetown's MS program started Fall 2007. After receiving a courtesy adjunct position, I advised and financially supported PhD/MS students at VirginiaTech-NVR starting 2008. My position at Notre Dame started Fall 2009 and, with that, the ability to advise PhD students locally.

Mohammed Nassar, University of Miami, (Spring 2014)

Luis Teofilo Nunez Degwitz, University of Miami (Spring 2014)

Khaled El-Goarany, Virginia Polytechnic Institute (December 2010)

Michael Lefebrve, Georgetown University (June 2010)

Ahmed Hamza, Georgetown University (December 2009)

UNDERGRADUATE STUDENT (ADVISED)

Larissa Ferreira-Da-Silva, BS Computer Science 2017

- Co—authored 1 conference paper
- Laerte Mello, BS Computer Science, 2017
 - Co—authored 1 conference paper

Sadallo Andere, BS Computer Science, 2017

• Co—authored 1 conference paper

Gustova Oliveira da Cruz, BS Computer Science, 2017

• Co—authored 1 conference paper

Mohamed Abdellatif, BS Computer Science, 2015 (PhD Student, Rutgers)

• Co—authored 1 conference paper

Christopher Ketant, BS Computer Science, 2012 (Apple)

• Co—authored 1 conference submission

Alex Yale-Loehr, BS Computer Science, 2012

- SMART Scholarship Awardee (Dept of Defense)
- Co—authored 1 journal article and 1 conference paper

Ian Schlesinger, BS Computer Science, 2012, (Google)

• Co—authored 1 journal article and 1 conference paper

Michael "Fitz" Nowlan, BS Computer Science, 2009 (PhD Student, Yale University)

- NDSEG Fellowship Awardee
- SMART Fellowship Awardee
- Georgetown Computer Science Award (Highest CS Honor at Georgetown Univ.)
- Completed Undergraduate Thesis
- CRA Undergraduate Research Award Finalist
- Co-authored 5 journal articles and 5 conference papers

David Cummings, BS, Science Technology and International Affairs, 2008 (MS Student, Stanford Univ.)

• Co-authored 1 journal article and 1 conference paper

Jerome Butcher-Green, BS, Computer Science 2007 (Software Engineer)

• Co-authored 1 journal article and 2 conference papers

Daniel Kahan, BS, Government, Minor Computer Science 2006 (J.D., Information Technology/Policy Georgetown University)

• Co-authored 1 journal article and 3 conference papers

Amy Lynn Sliva, BS, Computer Science, 2005 (Assistant Professor, Northeastern University, Ph.D. University of Maryland, College Park)

CRA Undergraduate Research Award Finalist

- ACM Undergraduate Research Award Finalist
- Georgetown Computer Science Award Finalist (Highest CS Honor at Georgetown Univ.)
- Completed Undergraduate Thesis
- Co-authored 1 journal article and 2 conference papers

Georgina Saez, BS, Computer Science, 2004 (Software Engineer, Accenture Consulting)

• Co-authored 1 conference paper

Wendell N. Norman, BS, Computer Science 2004 (Software Engineer, The MITRE Corporation)

• Co-authored 1 journal article

Nick Sklavounos, BS, Computer Science 2003 (Software Engineer, The MITRE Corporation)

Todd C. Cornett, BS, Computer Science 2002 (Accepted M.S. Stanford University)

Co-authored 3 conference papers

Denitsa Apostalova, BS Computer Science 2002 (MS CS, George Mason University)

Lindsay Blohm, BS, Computer Science 2002 (JD, Harvard University)

Marissa McGann, BS, Computer Science 2002 (Software Engineer)

Tepring Piquado, BS, Computer Science 2001, (Research Scientist, UC-Irvine, Ph.D., Brandeis University) • Co-authored 2 conference papers

Other Undergraduate Research Advising (Robert Browning '09, Ryan Butler '08, Douglas Finley '09, Mitchell Beard '08, Joseph Smith '08, Brian Miller '11, Shane Clark '10, Michael Lehmann '10, Solomon Adeyemi '12, Matt Yearwood '12, Julian Ragland '13, Brian Frisch '13, Krystina Scott, 2016)

UNDERGRADUATE STUDENTS COMPETING IN ACM NATIONAL RESEARCH COMPETITION (ADVISOR)

Saez, G., Sliva, A.L., and **Blake, M.B.** "Evaluating the Impacts of Internet Dynamism on UDDI Mechanisms and Frameworks for Web Services", *Technical Symposium in Computer Science Education SIGCSE 2004 (also ACM National Research Competition)* Norfolk, VA, March 2004 (short paper and presentation)

Piquado, T., Cornett, T., McGann, M., and **Blake, M.B.** "Object-Oriented Modeling for Agent-Based B2B Interoperability", *Technical Symposium in Computer Science Education SIGCSE 2001 (also ACM National Research Competition)* Charlotte, NC, March 2001 (short paper and presentation)

NEW TEACHING INNOVATIONS

New Group Training Modules for Teaching Software Design and Software Engineering, published in two IEEE Transactions of Education journal articles [8] [13] (Basis for Best Transaction Paper of 2003)

Founder of an International Forum toward the development of an undergraduate and graduate curriculum for Services Engineering (teamed with IBM Corporation)

SERVICE

EDITORSHIPS

- Editor-in-Chief IEEE Internet Computing (2015-2019)
- Founding Series Editor, Springer, Web-Scale Workflow and Analytics (2014-present)
- Associate Editor-in-Chief *IEEE Internet Computing* (2011-2014)
- Associate Editor *IEEE Transactions on Services Computing* (2008-present)
- Academic Editor PeerJ

- Associate Editor *IEEE Internet Computing* (2008-2011)
- Series/Department Editor (2008-2011), Web-Scale Workflow, IEEE Internet Computing
- Associate Editor International Journal of Information Systems for the Service Sector (2009present)
- Editorial Board -Multi-Agent and Grid Systems: An International Journal (2006-present)
- Editorial Board International Journal of E-Business Research (2005-present)
- Editorial Board Information Technology and Web Engineering (2005-present)
- Guest Editor for the International Journal of Web Services Research, Special Issue on Web Service Discovery and Composition Systems (Spring 2006)
- Guest Editor for the International Journal of Electronic Commerce, Special Issue on Agent-Based Approaches to B2B Electronic Commerce (Summer 2002)
- Associate Editor of the 2001 International Conference on Artificial Intelligence (IC'AI 2001)

NATIONAL COMMITTEES

- 2016-2017 Computer Science and Telecommunications Board of the National Academies, "Increasing Computer Science Enrollments" – Invited Committee Member
- 2014- Committee Member: Council of Graduate School's (CGS) Diversity and Inclusiveness Advisory Committee Meeting
- 2014- ASEE/Department of Defense NDSEG Reviewer
- 2012-14, Vice-Chair, IEEE Technical Committee on Business Informatics and Systems (TCBIS)
- 2010-12, Member, GRE Computer Science Subject Test Committee: Software Engineering Section
- 2011-, Ivy Tech Community College, Advisory Board
- 2010-12, Chair-Elect/Chair, Coalition for Diversifying Computing (CDC), Computer Research Assoc.
- 2009, Co-Chair of the National Science Foundation, Committee of Visitors (COV), CNS
- 2009, National Academy of Engineering, Japan-American Frontiers of Engineering, Invited Participant
- 2008-2011 Computer Science and Telecommunications Board of the National Academies, "Computational Thinking Workshop" – Invited Committee Member
- 2007-2009 Naval Studies Board of the National Academies, "Information Assurance for Network-Centric Naval Forces" – Invited Committee Member
- 2006-2008 National Science Foundation, CISE Advisory Committee
- 2006- present The IEEE Virtual Instructors Pilot Research Group **Co-Director/Co-Founder**
- National Academy of Engineering, Frontiers of Engineering Symposium (2006), Session Entitled: "The Rise of Intelligent Software Systems and Machines" – Invited Organizer (with David Fogel)
- 2005, Member of the National Science Foundation, Committee of Visitors (COV), IIS
 - Chosen to present the COV report to the CISE Advisory Committee

GENERAL CHAIR/CO-CHAIR

- 2018 IEEE International Conference on Collaboration and Internet Computing (CIC2018) General Chair
- 2017 IEEE International Conference on Cognitive Computing (ICCC2017) General Chair
- 2008 International Joint Conference on E-Commerce (CEC 2008) and Enterprise Computing, e-Commerce, and e-Service (EEE-08) – General Vice-Chair
- 2009-present IEEE International Conference on Enabling Technologies: Infrastructures for Collaborative Enterprises (WETICE) – Steering Committee

CONFERENCE PROGRAM CHAIR/CO-CHAIR

- 2016 IEEE Int. Conference on Cloud Computing (Cloud 2016) Area-Chair- Cloud & Software Eng
- 2015 IEEE Int. Conference on Cloud Computing (Cloud 2015) Area-Chair- Cloud & Software Eng
- 2012 IEEE Int. Conference Mobile Services (MS 2012) Program Co-Chair
- 2011 IEEE Int. Conf. Service-Oriented Computing & Applications (SOCA2011) Program Co-Chair
- 2011 IEEE Int. Conference Computational Science and Engineering (CSE2011) Vice Program Chair for Web Services and Internet Computing
- 2010 International Conference Cooperative Information Systems (CoopIS2010) Program Co-Chair
- 2007 IEEE International Conference on Enterprise Computing (EDOC-2007) Program Co-Chair
- 2006 IEEE International Conference on Services Computing (ICWS/SCC-2006) Program Co-Chair

CONFERENCE ORGANIZING COMMITTEE

- 2014 IEEE Int. Conference on Web Services (ICWS-2014) Industry Chair, Anchorage, AK
- 2013 IEEE Int. Conference on Web Services (ICWS-2013) Industry Chair, San Jose, CA
- 2012 IEEE Int. Conference on Web Services (ICWS-2012) Innovation Chair, Honolulu, Hawaii
- 2011 IEEE Int. Conference on Web Services (ICWS-2011) Innovation Chair, Washington, DC
- 2009 IEEE Int. Conference on Web Services (ICWS-2009) Tutorials Chair, Los Angeles, CA
- 2009 ACM Richard W. Tapia Conference on Diversity in Computing (TAPIA 2009) Funding Chair
- 2008 IEEE International Conference on Web Services (ICWS-2008) Industry Chair, Beijing, China
- 2007 IEEE International Conference Service-Oriented Computing and Applications (SOCA-2007) Workshops Chair, Newport Beach, CA
- 2007 International Joint Conference on E-Commerce (CEC 2007) and Enterprise Computing, e-Commerce, and e-Service (EEE-07) – Web Services Challenge Co-Chair, Tokyo, Japan
- 2007 ACM Richard W. Tapia Conference on Diversity in Computing (TAPIA 2007) Funding Chair
- 2006 International Joint Conference on E-Commerce (CEC 2006) and Enterprise Computing e-Commerce and e-Service (EEE-06) – Web Services Challenge Co-Chair, San Francisco, CA
- 2005 ACM Richard W. Tapia Conference on Diversity in Computing (TAPIA 2005) Panels Chair

WORKSHOP ORGANIZING COMMITTEES

- 2007-2009 IEEE International Workshop on Service Composition **Co-Organizer**
- 2007- 2009 Software Engineering for Large Scale MultiAgent Systems Forum Co-Organizer
- 2007- 2009 Workshop on Agent-Based Approaches for Human Learning Co-Organizer
- Georgetown University/IBM Service-Oriented Architecture Summit (September 2006) Organizer
- Service Level Agreement (SLA-TEM) Technical Exchange Meeting, The MITRE Corporation (July 2006) **Organizer**
- 2006 Workshop on Agent-Based Computing For Enterprise Collaboration (ACEC) as part of WETICE 2006 – Co-Organizer
- International Conference on Enterprise Computing, e-Commerce, and e-Service (EEE-05) Web Services Challenge Chair (Founder of new competition modeled like TAC for Web Services), Hong Kong
- Workshop on Agent-Based Computing For Enterprise Collaboration (ACEC) as part of WETICE 2005, Co-Organizer
- Workshop on Agent-Based Computing For Enterprise Collaboration (ACEC) as part of WETICE 2004,
 Co-Organizer
- Workshop on Agents and Electronic Commerce as part of ICEC 2003, Organizer
- Workshop on Agent-Based Approaches to B2B E-Commerce at CoopIS 2003, Co-Organizer
- Workshop on Agent-Based Computing For Enterprise Collaboration (ACEC) as part of WETICE 2003, Co-Organizer
- AAAI-2002 Workshop on Agent-Based Technologies for B2B E-Commerce, Organizer
- Workshop on Agent-Based Approaches to B2B at AGENTS 2001, Organizer

CONFERENCE PROGRAM COMMITTEES/SESSION CHAIRMANSHIP

- Int Conference on Web Services (ICWS2007-2012)
- Int Conference on Software Engineering (ICSE2007) (Workshops Program)
- Int. Conference on Service-Oriented Computing and Applications (SOCA) (2007)
- Invited Session Chair: International Conference on E-Commerce Technologies (CEC2006)
- Int Conference on Cooperative Information Systems (CoopIS) (2008)
- Int Conference on Business Process Management (BPM) (2006, 2007)
- Int. Conference on Autonomous Agents and Multiple Agent Systems (AAMAS) (2003,2004,2005)
- Int. Conference on Information Systems (ICIS) (2005)
- Int. Conference on Electronic Commerce (ICEC) (2004)
- Int. Conference on e-Technology, e-Commerce and e-Service (EEE-05) (2005,2006, 2007)
- Int. Conference on Service-Oriented Computing (ICSOC) (2003,2007)
- Int. Conference on Applied Computing (IADIS) (2005)
- Int. Conference on Software Engineering Education and Training (2003)
- Int. Conference of Artificial Intelligence (IC'AI 2002)
- Invited Session Chair: International Conference on Web Services (ICWS 2004)

- Invited Session Chair: International Conference on Software Eng. and Knowledge Eng (SEKE'03)
- Invited Session Chair, 32nd ACM Technical Symposium on Computer Science Education (2002)
- Session Chair/Program Committee for the 2001 International Conference on Artificial Intelligence (Session on Agent-oriented Software Architectures for B2B)
- Invited Session Chair, AMCIS 2000: Track on Workflow Technology

WORKSHOP PROGRAM COMMITTEES

- 2nd International Workshop on Service Composition (part of WIC 2007)
- Invited Session Chair: Data Engineering of E-Commerce and Services (DEECS 2006)
- 4th International Workshop on Web Semantics (part of DEXA 2005)
- AAAI-2005 Fall Symposium on Semantic Web Services
- AAAI-2004 Spring Symposium on Semantic Web Services
- Int. Workshop on Ubiquitous Computing (2003 2005)
- Int. Workshop on Software Engineering for Large-Scale Multi-Agent Systems (SELMAS) (2003 2007)
- Int. Workshop on Service-Oriented Computing Agent-Based Engineering (SOCABE) (2003 2007)
- Int. Workshop on Agents and Peer-to-Peer Computing (AP2PC) (2003-2007)
- Int. Workshop on Agent-Oriented Information Systems (AOIS) at (2003-2007)
- Int. Workshop on Handheld Computing (2003 -2005)
- Int. Workshop on Wireless Information Systems (WIS) (2004, 2005)
- Int. Workshop on E-Business (WeB) (2003-2007)
- Int. Workshop on M-Services, Concepts, Approaches, and Tools at the International Symposium on Methodologies for Intelligent Systems (ISMIS 2002)

SERVICE AS AN EXTERNAL TENURE AND PROMOTION REVIEWER

2005, 2006 Zayed University 2008, 2012 University of North Carolina-Charlotte 2009 Clemson University 2009 University of Michigan-Dearborn 2009.10.11.12 United Arab Emirates University 2010 Georgia State University 2010 University of Baltimore 2011 University of South Carolina 2012,13,14 Rochester Institute of Technology 2012 Florida A&M University 2012 Wayne State University 2012 Emory University 2013 University of Technology, Jamaica 2014 Indiana University 2014 Vrije Universiteit Amsterdam 2015 Georgia Regents University 2015 University of Nebraska-Lincoln

REVIEWER (UNVERSITY COMMITTEES, PANELS, AND JOURNALS)

Fordham University-Invited Sciences Division Reviewer (2009), Loyola University-Invited Computer Science Department Reviewer (2009), Spelman University-Invited Computer Science Department Reviewer (2006), NSF Site Review Committee (2004,2005,2006), NSF Review Panels (2004-present), Decision Support Systems (2003-present), IEEE Transactions on Engineering Management (2005), Information Systems Frontiers (2005), Data and Knowledge Engineering Journal (2003, 2005), Simulation: Transactions of the Society for Modeling and Simulation International (2005), Journal of Systems and Software (2003), IEEE Internet Computing (2003-present), Journal of Management Information Systems (2002,2003), IEEE Intelligent Systems (2003), Information Sciences (2002,2003), IEEE Transactions on Education (2001-present), Information Technology and Management (2002), Computer Communications (2002), International Journal on Software Engineering and Knowledge Engineering (2001,2004), Journal of Information System Frontier (2000), International Journal of Electronic Commerce (2002-2004), Communications of the ACM (2001)

REVIEWER (BOOKS AND CONFERENCES)

GROUP 2005, SIGCSE (2002-2007), Symposium on Applied Computing (2001-2006), Wiley Press (Electronic Commerce Text) (2003), Java for Information Systems, Prentice Hall (2003), Dietel and Dietel How to Program Java, Prentice Hall(2003), Programming Language Pragmatics, Michael Scott, Morgan Kaufman (2002), Programming and Problem Solving in Java, Brooks/Cole Publishers (2002), Software Engineering for Large-Scale Multi-Agent Systems (2004-2007), Object-Oriented Software Engineering, Bruegge and Dutoit, Prentice Hall (2003) ACM National Student Research Competition (2002,2003), Hawaii International Conference on System Sciences (2002), Objects Have Class, David Poplawski, McGraw-Hill Publisher (2001), B2B Integration-Concepts, Arch, Standards, Prentice Hall (2001), Americas Conference on Information Systems (2000)

DEPARTMENT SERVICE

2010-2012 Computer Sci and Eng. Department – Committee on Promotion and Tenure 2009-2012 Computer Sci and Eng. Department – Graduate Studies Committee 2009-2012 Computer Sci and Eng Department – GANNN Fellows Advisory Committee

2007-2009 Computer Science Department - Department Chair 2007-2009 Computer Science Department - Chair, Committee on Tenure and Promotion 2007-2009 Computer Science Department – Search Committee Chair/Co-Chair, Endowed Professor 2007-2009 Computer Science Department – Director of Graduate Studies 2006-2007 Computer Science Department - Colloquium Chair 2006-2007 Computer Science Department - Faculty Hiring Committee 2006-2008 Computer Science Department – Merit Review Committee Chair 2004-2007 Computer Science Department - MSDN Chair 2005-2007 Computer Science Department - Curriculum Committee Chair/Co-Chair 2004 Computer Science Department - Web Site Development Committee 2004 Computer Science Department – Honor Policy Committee Co-Chair 2002-2003 Black History Month Department Page 2002-2004 Computer Science Department - Public Relations Committee Chair 2001-2002 Computer Science Department - Faculty Hiring Committee 2001-2002 Computer Science Department – Curriculum Committee 2000-2004 Solicited a summer position for research assistant (T. Cornett) under my direction at The MITRE Corporation that established a pipe-line for 4 other students to gain employment at MITRE in the subsequent 3 years (N. Sklavounos, W. Norman, J. Marguiss, and A. Sliva)

UNIVERSITY/COLLEGE SERVICE

2013-2014 Chair, Search Committee: Dean of Architecture (Provost Appointee) 2013-2014 Co-Chair, Dean's Council Chair, Academic Computing Advisory Committee (Provost Appointee) 2013-2012-Provost Academic Personnel Board (APB) (University Rank and Tenure Committee) 2012-2013 Search Committee: Dean of Libraries (Provost Appointee) 2010-2013 University Academic Council (President Appointee) 2011-2012 Dean of Engineering: 5-year Review Committee (Provost Appointee) 2010-2012 Chair, University Disabilities Grievance Student Hearing Board (Provost Appointee) 2010-2011 Environment Change Initiative (Launch Committee) 2011 Search Committee: Grant Writer, Graduate School 2011 Search Committee: Director, Harper Cancer Institute 2010-present Corporate and Foundation Relations Governance Committee 2009-present Office of Research - Limited Submission Committee 2009-present University Strategic Research Council 2009-present Graduate Council (ex-officio) 2009-present College Council (ex-officio) 2009-present University Diversity Committee 2009-present Moreau Postdoctoral Fellow Selection Committee 2009-present College of Engineering Executive Committee (College Tenure and Promotion Committee)

2009-present Associate Dean of Engineering

2007-2008 Task Force for Systems Biology (Provost Appointee)
2004 Campus-Wide Board of Directors Undergraduate Learning Initiative (4/2004)
2004 GAAP Lectures (2/20, 4/2, 4/16, & 4/23)
2002-2003 Interim-Director/ Georgetown University Minority Mentoring Program
2002-2003 Diversity Workshop/ Pluralism in Action Leader
2002-2006 Georgetown University Admissions Committee (8 hour a week commitment)
2002-present African American Studies Advisory Board
2001-2002 Center for Minority Educational Affairs (CMEA) Kids-To-College Program
2001-2003 Faculty-Staff Basketball Game at Midnight Madness
2001-2009 Georgetown Admissions Ambassador Program (GAAP) (Lecturer/Speaker)
2001 Faculty Advisor, Georgetown University Entrepreneurial Society

OUTSIDE PHILANTHROPIC SERVICE

1998 - present On-going pre-Engineering program with Wakefield High School, Arlington VA (Wakefield Contacts: Al Reid and Verlese Gaither)
2006- present Member of the 100 Black Men of Washington, DC
2002 Organized informal event for Wakefield Students at Georgetown (May 2002)
2002 Black Engineer of the Year Conference Representative/Panelist (Feb 2002
2001 Reach For Tomorrow Program Panelist for Panel on Aviation Careers (June 2001)
2001 Organized tour with under-Represented Wakefield Students at Georgetown (March 2001)
2001 Acted as Proctor for the Wakefield High School Annual Math/Science Fair (May 2001)
2001 Black Engineer of the Year Conference Representative (Feb 2001)

ASSOCIATION MEMBERSHIPS

Institute of Electrical Engineers (IEEE)/ Computer Society (Senior Member) Association of Computer Machinery (ACM) (ACM Distinguished Scientist) National Society of Black Engineers (NSBE) 100 Black Men of Greater Washington, DC Omega Psi Phi Fraternity Inc.

PERSONAL INFORMATION

US Citizen Married with 2 sons Hobbies: Running, Fishing, Basketball, and Mentoring underrepresented students in Computer Science Security Clearance information available upon request