Andrew A. Allen

Department of Computer Sciences Allen E. Paulson College of Engineering and Information Technology Georgia Southern University Statesboro, GA 30460-7997 andrewallen@georgiasouthern.edu

Education

2011 - Ph.D. in Computer Science, Florida International University (FIU), Miami, FL, Dissertation Title: Abstractions to Support Dynamic Adaptation of Communication Frameworks for User-Centric Communication

2009 - M.Sc. in Computer Science, Florida International University (FIU), Miami, FL 2005 - B.Sc. in Computer Science, Florida International University (FIU), Miami, FL

Academic Employment History

2013 – Present: Assistant Professor of Computer Sciences, Georgia Southern University 2011 – 2013: Visiting Faculty of Computer Sciences, Georgia Southern University

Other Employment History

1999 – 2006: Systems Analyst/Systems Administrator, Airports Authority of Jamaica 1995 – 1999: Network Systems Integrator, Innovative Systems Limited, Jamaica

Research Interest

Software Engineering, Software Testing, Model-Driven Engineering, Middleware, Distributed Systems, Autonomic Computing, Model-Based Software Development and Computer Science Education.

Publications

Refereed Journal Articles

- 1. Andrew A. Allen, Fabio M. Costa and Peter J. Clarke. A user-centric approach to dynamic adaption of reusable communication services. *Personal and Ubiquitous Computing*, Springer (accepted January 2016)
- Yali Wu, Andrew A. Allen, Frank Hernandez, Robert B. France, and Peter J. Clarke., 2011, A Domain-specific Modeling Approach to Realizing User-Centric Communication, in *Software Practice and Experience*, Vol. 42, Issue 3, John Wiley & Sons, Ltd. 2012

Refereed Conference Proceedings

- 3. Mark Allison, Stephen Turner and Andrew A Allen. Towards interpreting models to orchestrate IaaS multi-cloud infrastructures. *Proceedings of the 10th International Conference on Computer Science Education (ICCSE)*, (July 2015) pages 80-85.
- 4. Leandro A Freitas, Fábio M Costa, Ricardo CA Rocha and Andrew A. Allen, architecture for a smart spaces virtual machine. *Proceedings of the 9th Workshop on Middleware for Next Generation Internet Computing in conjunction with ACM/IFIP/USENIX Middleware 2014 conference* (December 2014).
- 5. Gustavo C. M. Sousa, Fabio M. Costa, Peter J. Clarke and Andrew A. Allen. Model-Driven Development of DSML Execution Engines. *Proceedings of the 7th International Workshop on Model@run.time in conjunction with ACM, IEEE Models 2012 Conference (October 2012)*
- 6. Tariq M King, Andrew Allen, Yali Wu, Peter J Clarke, Alain E Ramirez. A Comparative Case Study on the Engineering of Self-Testable Autonomic Software. *Proceedings of the 8th IEEE International Conference and Workshops on Engineering of Autonomic and Autonomous Systems (EASe 2011)*, pages 59-68
- 7. Tariq M. King, Andrew A. Allen, Rodolfo Cruz and Peter J. Clarke. Safe Runtime Validation of Behavioral Adaptations in Autonomic Software. *Proceedings of the* 8th International Conference on Autonomic and Trusted Computing, Springer Lecture Notes in Computer Science, Vol. 6906 September 2-4, 2011, pages 31-46
- 8. Mark Allison, Andrew A. Allen, Zhenyu Yang and Peter J. Clarke. A Software Engineering Approach to User-Driven Control of the Microgrid. *Proceedings of the 23rd International Conference on Software Engineering and Knowledge Engineering*, July 2011, pages 59-64
- Tariq M. King, Andrew A. Allen, Yali Wu, Peter J. Clarke, and Alain E. Ramirez. A Comparative Case Study on the Engineering of Self-Testable Autonomic Software. Proceedings of the 8th International IEEE Conference on the Engineering of Autonomic and Autonomous Systems, April 27-29, 2011, pages 59-68.
- Peter J. Clarke, Andrew A. Allen, Tariq M. King and Edward L. Jones and P. Natesan. Using a Web-Based Repository to Integrate Testing Tools into Programming Courses. SPLASH 2010 Educators' and Trainers' Symposium(Oct 2010), pages 193-200
- 11. Andrew A. Allen, Yali Wu, Peter J. Clarke, Tariq M. King and Yi Deng. An Autonomic Framework for User-Centric Communication Services. *Proceedings* of the 2009 Conference of the Center for Advanced Studies on Collaborative research (CASCON 09).
- 12. Peter J. Clarke, Yali Wu, Andrew A. Allen and Tariq M. King. Experiences of Teaching Model-Driven Engineering in a Software Design Course. *Proceedings of the Models 2009 Educators' Symposium (Oct 2009).*

- 13. Yingbo Wang, Yali Wu, Andrew A. Allen, Barbara Espinoza, Peter J. Clarke and Yi Deng. Towards the Operational Semantics of User-Centric Communication Models. *Proceedings of the 33rd Annual IEEE International Computer Software and Applications Conference (COMPSAC 09).* (Acceptance rate 20%)
- 14. Paola Boettner, Mansi Gupta, Yali Wu and Andrew A. Allen. Towards Policy Driven Self-Configuration of User-Centric Communication. *Proceedings of the* 47th ACM Southeast Conference (ACMSE 09).
- 15. Yali Wu, Andrew A. Allen, Frank Hernadez, Yingbo Wang and Peter J. Clarke. A User-Centric Middleware for CVM *Proceedings of the IASTED International Conference on Software Engineering and Applications (SEA 2008).*
- 16. Yingbo Wang, Peter J. Clarke, Yali Wu, Andrew A. Allen and Yi Deng. Runtime Models to Support User-Centric Communication. Proceedings of the 3rd International Workshop on Models@runtime(Sept 2008)
- 17. Andrew A. Allen, Sean Leslie, Ricardo Tirado, Yali Wu and Peter J. Clarke. Self-Configuring User-Centric Communication Services. *The Third International Conference on Systems (ICONS 2008).*
- 18. Yingbo Wang, Peter J. Clarke, Yali Wu, Andrew A. Allen and Yi Deng. Realizing Communication Services Using Model Driven Development. Proceedings of the IASTED International Conference on Software Engineering and Applications (SEA 2007).

Book Chapters

19. Peter J. Clarke, Yali Wu, Andrew Allen, Frank Hernandez, Mark Allison, Robert France, "Formal and Practical Aspects of Domain-Specific Languages: Recent Developments, chapter 9: Towards Dynamic Semantics for Synthesizing Interpreted DSMLs", IGI Global 2013.

Posters

- Andrew A. Allen, Peter J. Clarke, Fabio M. Costa, "<u>Dynamic Constraint Solving</u> <u>to Support Self-Configuration in CVM</u>", Eight Latin American Grid (LA Grid) Summit, (October 28-29, 2010).
- 21. Andrew A. Allen, Peter J. Clarke, Jean-Marc Jazequel, "<u>Autonomic Behavioral</u> <u>Aspects for Model-Driven Communication Applications</u>", Seventh Latin American Grid (LA Grid) Summit, (October 22-23, 2009).

Contracts and Grants

2015-2019: Using a Cyberlearning Environment to Improve Student Learning and Engagement in Software Courses; NSF; PI: Andrew A. Allen; Co-PIs: James D. Kiper, Miami University; Peter J. Clarke, Florida International University; Gursimran S. Walia,

North Dakota State University; Edward L. Jones, Florida A&M University; Ingrid Buckley, Tuskegee University; Yujian Fu, Alabama A&M University; Debra M. Duke, J. Sargeant Reynolds Community College; Total - \$1.7M, GSU - \$119k

Professional-Related Activities

Journals Reviewed: Software Quality Journal (SQJ), IEEE Transactions on Biomedical Engineering (TBME), Journal of Software and Systems (JSS);

Conferences Reviewed: IEEE International Symposium on High Assurance Systems Engineering (HASE), International Conference on Software Engineering and Knowledge (SEKE), ACM Symposium on Computer Science Education (SIGCSE); ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, International Conference on Software and Data Technologies (ICSOFT), IEEE International Conference on Information Reuse and Integration (IRI), International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD), International Conference on Autonomic and Trusted Computing (ATC);

Program Committee Member: International Symposium on High Assurance Systems Engineering (HASE – 2013, 2014, 2015, 2016);

Workshop Organizer: Workshop on Integrating Software Testing into Programming Courses (WISTPC-14-1); Workshop on Integrating Software Testing into Programming Courses(WISTPC-14-2); Workshop on Integrating Software Testing into Programming Courses (WISTPC-15);

Professional Memberships

2009 – Present: The Institute of Electrical and Electronics Engineers (IEEE) 2009 – Present: Association for Computing Machinery (ACM)

Recognition & Honors

- Best Paper Award : Proceedings of the 8th International Conference on Autonomic and Trusted Computing, Springer Lecture Notes in Computer Science, September 2011
- Best Paper Award 3rd Place: Proceedings of the 23rd International Conference on Software Engineering and Knowledge Engineering , July 2011,
- Dissertation Year Fellowship (2010), Florida International University
- NSF PIRE Awardee, UFG Brazil, Summer 2010.
- NSF PIRE Awardee, INRIA Research Lab Rennes France, Summer 2009.
- Academic Achievement Award (2005).