Devon Michael Simmonds

Computer Science Department
University of North Carolina Wilmington
Wilmington, NC-28403
Tel: (910) 962-3819, Fax: (910) 962-7457
Email: simmondsd[at]uncw.edu
URL: http://people.uncw.edu/simmondsd/

Education

- **Doctor of Philosophy**, Computer Science (Software Engineering), Colorado State University, 2007. Dissertation: "Transforming UML Design Models"

- **Postgraduate Diploma in Education,** University of Technology, Jamaica, 1999.

- **Master of Science,** Computer Science (Computer Aided Learning), McGill University, Montreal, Canada, 1995.

- **Bachelor of Science,** Computer Studies, University of the West Indies (Mona), Jamaica, 1989.

Professional Experience

- **Associate Professor**, Department of Computer Science,
  University of North Carolina Wilmington, 8/2013 to present.

- **Assistant Professor**, Department of Computer Science,
  University of North Carolina Wilmington, 8/2006 to 7/2013.

- **Instructor,** Computer Science Department, Colorado State University, 2003-2005.

- **Teaching Assistant,** Computer Science Department, Colorado State University, 2000-2005.

- **Lecturer,** School of Computing & Information Technology, University of Technology, Jamaica, 1989-2000.

- **Lecturer (part-time),** Computer Science Department, University of the West Indies (Mona), Jamaica, 1999.

Current Research Interests

Software Engineering, Analysis and evaluation of software architectures, Development, testing and evaluation of aspect oriented software systems,

application of aspect-oriented techniques to the development of distributed systems, model-driven software engineering, model transformations and code generation from design models.

Publications

- Andrew Harnage, Doug Flagg, Amber Whittemore, **Devon Simmonds**. (**2013**) "A Case Study in the Model-Driven Development of CorkBoard – a WebApp for Collaborative Work", In Proceedings of the International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 22-25, 2013. (Acceptance rate 28%).

- Selin Benli, Anthony Habash, Andy Herrmann, Tyler Loftis, **Devon Simmonds**. A Comparative Evaluation of Unit Testing Techniques on a Mobile Platform. In Proceedings of Information Technology: New Generations 2012, Las Vegas, NV, April 16-18, 2012. (Acceptance rate 36%).

- **Devon Simmonds**, Mark Lanter, Lyle Scott III, Ashley Young, Selin Benli, Andy Herrmann. Exploring Model-Based Design. In Proceedings of Information Technology: New Generations 2012, Las Vegas, NV, April 16-18, 2012.

- **Devon M. Simmonds**. Principles of Programming Paradigm Evolution. IEEE Computer, Vol. 45. No. 6, pp. 93 – 95, June 2012.

- Michelle A. Wilcox, **Devon M. Simmonds**, Thomas D. Lovette, Yuli Bonner."A Case Study in Software Project Estimation". In Proceedings of International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS), Las Vegas, Nevada, July 16-19, 2012. (Acceptance rate 28%).

- Thomas D. Lovette, **Devon M. Simmonds**, Michelle A. Wilcox, Yuli Bonner. (2012) "ClipBits - A Case Study in Model-Driven Software Engineering", In Proceedings of the International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 16-19, 2012. (Acceptance rate 26%).

- **Simmonds, D. M** and Michael Nipper.. (2012) "GiftScroll - An Online Gift Registry for the Android Mobile Phone", In Proceedings of the International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 16-19, 2012. (Acceptance rate 26%).

- Kline, D. M., Reinicke, B. A., Peck, S., Porterfield, R. I., Rosen, L. D., & **Simmonds, D. M**. (2011) Analysis and Implementation of an Assurance of Learning System, Chronicle of Higher Education.

- Wuliang Sun, Eunjee Song, Paul Grabow, **Devon M. Simmonds**. Toward an Integrated Tool Environment for Static Analysis of UML Class and Sequence Models, In Journal of Universal Computer Science (JUCS) special issue on Foundations and Practices of UML.

- Peck, Sarah; Kline, Douglas; Reinicke, Bryan; Rosen, Drew; **Simmonds, Devon M**. System Analysis of an Assurance of Learning System. In proceedings of Information Systems Educators Conference (ISECON), Nashville TN, October 28 - 31, 2010.

- Wesley Williams and **Devon M. Simmonds**. A Case Study in the Design of a Restaurant Management System. In Proceedings of International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS), Las Vegas, Nevada, July 12-15, 2010. (Acceptance rate 26%).

- Dudley, J. and **Simmonds, D. M**. (**2010**) "The Viability of UML Models in Small Web Applications", in Proceedings of the International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 12-15, 2010. (Acceptance rate 28%).

- Boddoohi, M. and **Simmonds, D. M**. (**2010**) "A Comparison of Software Architectural Styles Using Aspects", in Proceedings of the International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 12-15, 2010. (Acceptance rate 28%).

- D. Casey Tucker and **Devon M. Simmonds**. A Case Study in Software Reengineering. In Proceedings of 7th International Conference on Information Technology: New Generations (ITNG) 2010, Las Vegas, Nevada, April 2010 (Acceptance rate 28%).

- Wuliang Sun, Eunjee Song, Paul Grabow, **Devon M. Simmonds**. (2009). XMI2USE: A Tool for Transforming XMI to USE Specifications, in proceedings of the 5th International Workshop on Foundations and Practices of UML (FP-UML), held in conjunction with the 28th International Conference on Conceptual Modelling, ER 2009, Gramado, Brazil. (Acceptance rate 40%).

- **Simmonds, D. M**., Reddy, Y. R., Song, E. and Grant, E. (**2009**) "A Comparison of Aspect-Oriented Approaches to Model Driven Engineering", in Proceedings of the International Conference on Software Engineering Research and Practice, (SERP 2009). (Acceptance rate 25%).

- **Devon Simmonds**. "In Support of An Aspect-oriented Approach to Migrating Distributed Applications", in proceedings of the 1st Caribbean Conference on

Information and Communications Technology (CCICT2009), Kingston, Jamaica, March 16-18, 2009. (Acceptance rate 50%).

- **Devon Simmonds**. "*Aspect-oriented Approaches to Model Driven Engineering*", In proceedings of the International Conference on Software Engineering Research and Practice, Las Vegas, Nevada, July 2008.

- Royce Nobles, **Devon Simmonds**, Gene Tagliarini. *"Parametric Software Cost Estimation for the Solitary Programmer*", In proceedings of the International Conference on Software Engineering Theory and Practice, Orlando, Florida, July 2008**.**

- **Devon Simmonds**. "Transforming UML Class Models", Ph.D. Dissertation, Department of Computer Science, Colorado State University, May 2007.

- Arnor Solberg, **Devon Simmonds**, Raghu Reddy, Robert France, Sudipto Ghosh, Jan Øyvind Aagedal. "*DEVELOPING DISTRIBUTED SERVICES USING AN ASPECT ORIENTED MODEL DRIVEN FRAMEWORK*", International Journal of Cooperative Information Systems (IJCIS), Vol. 15, No. 4, pp 535-564, December 2006.

- B. Baudry, T. Dinh-Trong, J.-M. Mottu, **D. Simmonds**, R. France, S. Ghosh, F. Fleurey, and Y. Le Traon. Challenges for Model Transformation Testing. In Proceedings of IMDT workshop in conjunction with ECMDA'06, Bilbao, Spain, July 2006.

- S. Ghosh, R. B. France, **D. M. Simmonds**, A. Bare, B. Kamalakar, R. P. Shankar, G. Tandon, and S. Yin, "A Middleware Transparent Approach for Developing Distributed Applications," Software Practice and Experience, Vol. 35, No. 12, pp. 1131-1154, May 2005.

- **Devon Simmonds**, Arnor Solberg, Raghu Reddy, Robert France, Sudipto Ghosh, "An Aspect Oriented Model Driven Framework", Accepted to the 9th International Enterprise Distributed Computing Conference (EDOC 2005), Enschede, The Netherlands, September, 2005.

- Arnor Solberg, **Devon Simmonds**, Raghu Reddy, Sudipto Ghosh, Robert France, "Using Aspect Oriented Technologies to Support Separation of Concerns in Model Driven Development", Proceedings of the 29th Annual International Computer Software and Applications Conference (COMPSAC 2005), Edinburgh, Scotland, July, 2005.

- **D. M. Simmonds**, S. Ghosh and R. B. France, "Middleware Transparent Software

Development & The MDA", Proceedings of the WiSME Workshop in Software Model Engineering at UML'2003, San Francisco, USA, October, 2003.

- **D. M. Simmonds**, S. Ghosh and R. B. France, "An MDA Framework for Middleware Transparent Software Development & Quality of Service", In Proceedings of QoS in CBSE Workshop at RST'2003, Toulouse, France, June, 2003.

- **D. M. Simmonds**, S. Ghosh and R. B. France, "An MDA Framework for Middleware Transparent Software Development", In Proceedings of RTAS 2003 Workshop on Model-Driven Embedded Systems, Washington, D.C., May, 2003.

- **D. M. Simmonds**, S. Ghosh and R. B. France, "An Aspect Oriented Model Driven Architectural Framework for Middleware Transparency", In Proceedings of Early Aspects Workshop at the AOSD 2003 Conference, Boston, March, 2003.

- **D. Simmonds** and S. Ghosh, "Middleware Transparency through Aspect-Oriented Programming using AspectJ and Jini", Proceedings of SPIE ITCOM Conference on Java/Jini Technologies - II, vol. 4863A, Boston, August, 2002.

Presentations

- Thomas D. Lovette, **Devon M. Simmonds**, Michelle A. Wilcox, Yuli Bonner. "ClipBits - A Case Study in Model-Driven Software Engineering", International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 17, 2012.

- **Simmonds, D. M** and Michael Nipper. "GiftScroll - An Online Gift Registry for the Android Mobile Phone", International Conference on Software Engineering Research and Practice, (SERP), Las Vegas, Nevada, July 19, 2012.

- **Devon M. Simmonds**, "Understanding Software Engineering", Presentation to I^{2}SIS Research Group, Department of Computer Science, UNCW, July 12, 2011.

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, Jan 27, 2012.

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, March 4, 2011.

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, August 27, 2010.

- **Devon M. Simmonds**, "Reaching for the STARS", National Engineers Week Presentation to Middle School Students @ Williston Middle School, Wilmington, North Carolina. 2/19/2010.

- **Devon M. Simmonds**, "Software Engineering Research", presentation at UNCW MSCIS graduate student orientation, August 14, 2009

- **Devon Simmonds**. "A Comparison o Aspect-oriented Approaches to Model Driven Engineering", International Conference on Software Engineering Research and Practice, Las Vegas, Nevada, July 16, 2009.

- **Devon Simmonds**. "In support of an aspect-oriented approach to Migrating distributed applications", presented at the 1st Caribbean Conference on Information and Communications Technology (CCICT2009), Kingston, Jamaica, March 16, 2009.

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, March 6, 2009

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, October 23, 2008

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, September 26, 2008

- **Devon M. Simmonds**, "Software Engineering Research", presentation at UNCW MSCIS graduate student orientation, August 19, 2008

- **Devon Simmonds**. "Aspect-oriented Approaches to Model Driven Engineering", In proceedings of the International Conference on Software Engineering Research and Practice, Las Vegas, Nevada, July 16, 2008.

- **Devon M. Simmonds**, "Discover the Modeler in You!", CSC 100 presentation, September 14, 2007

- **Devon M. Simmonds**, "Software Engineering Research", presentation at UNCW MSCIS graduate student orientation, August 17, 2007

- **Devon M. Simmonds,** "Middleware Transparent Software Development", Presented at Collaborative Workshop, Oslo Norway, May 29 – June 2, 2006.

- **Devon M. Simmonds,** "Middleware Transparent Software Development", Presented at Internal Department Workshop, Department of Computer Science, Colorado State University, Fort Collins, CO, September 16, 2005.

- **Devon M. Simmonds,** "Middleware Transparent Software Development", Presented at Collaborative Meeting with visiting French Researchers, Department of Computer Science, Colorado State University, Fort Collins, CO, July 12, 2005.

- **Devon M. Simmonds,** "Parallel Changes in Large-Scale Software: An Observational Case Study", Presented at Advanced Topics In Software: Measurement, Evaluation, Analysis Course, Department of Computer Science, Colorado State University, Fort Collins, CO, February 15, 2005.

- **Devon M. Simmonds,** "Two Case Studies of Open Source Software Development: Apache and Mozilla", Presented at Advanced Topics In Software: Measurement, Evaluation, Analysis Course, Department of Computer Science, Colorado State University, Fort Collins, CO, February 10, 2005.

- **Devon M. Simmonds,** "Middleware Transparent Software Development", Presented at Collaborative Meeting with visiting Norwegian Researchers, Department of Computer Science, Colorado State University, Fort Collins, CO, July 27, 2004.

- **Devon M. Simmonds,** "An Aspect Oriented MDA Framework for Middleware Transparency", Presented at Early Aspects Workshop at the AOSD 2003 Conference, Boston, March 17, 2003.

Posters/Panels

- **Devon M. Simmonds**, Poster Presentation, "Aspect-oriented Approaches to Model Driven Engineering" at NSF Minority Faculty Development Workshop, "Engineering Faculty Success" Massachusetts Institute of Technology Cambridge, Massachusetts, March 21 - 24, 2010 Cambridge, MA.

- **Devon M. Simmonds,** "Middleware Transparent Software Development", Poster presented at Information Science and Technology Colloquium, Fort Collins, Colorado, April 13-14, 2005.
- **Devon M. Simmonds,** "Middleware Transparent Software Development", Poster presented at Computer Science Research Symposium, Fort Collins, CO, April, 2005.
- Panelist, in Ph. D. Qualifying Exam Panel Session, Department of Computer Science, Colorado State University, Fort Collins, CO, February, 2005.

Grants / Proposals

- Proposal# 13-0005, CAREER ArchStore: An Architectural Repository for Teaching and Research, National Science Foundation, $590,729.78, Proposal Rejected.

- Simmonds, D. M. (Co-Principal), Ricanek, K. (Principal), Cahoon, L. B. (Co-Principal), Grant, "CASIS 3rd YR", Army Research Laboratory (ARL)/Central Intelligence Agency (CIA), Federal, $97,000.00, Funded. (start: November 30, 2011, end: August 21, 2012).

- Co-principle investigator, Digital Visualization and Analysis Tool, with Richard Huber, Karl Ricanek and Larry Cahoon, National Oceanic Atmospheric Association (NOAA), Amount $289,000, February 2008, Proposal was rejected.

Administrative Experience

- Bachelor's degree curriculum development team member, University Council of Jamaica (UCJ).
- Strategic Plan development team member, University of Technology, Jamaica.
- Curriculum development & academic administration, Faculty of Engineering & Computing, University of Technology, Jamaica.

Service

Committees

- UNCW Faculty Senate – Fall 2010 to present

- UNCW CSC Assessment Committee – Fall 2010 to present

Article Reviewer

- Research in Applied Computation Symposium
- IEEE Computer
- Journal of Universal Computer Science (JUCS) http://www.jucs.org/jucs.
- Software and Systems Modeling, https://mc.manuscriptcentral.com/sosym
- The Transactions on Aspect Oriented Software Development (TAOSD), http://www.springer.com/computer/lncs?SGWID=0-164-2-109318-0
- The Journal of Supercomputing, http://www.editorialmanager.com/supe/
- Emerging Synergies of Artificial Intelligence and Software Engineering hosted at IJSEKE
- Journal of Universal Computer Science (JUCS) Special Issue on "Software Components, Architectures and Reuse", 2007/2008.
- Member of Program Committee for the 4th International Workshop on Critical Systems Development Using Modeling Languages (CSDUML 2005).

- SoSym – Journal on Software and Systems Modeling.
- Int'l Journal of Software Engineering & Knowledge Engineering (IJSEKE).
- The 28th Annual International Computer Software and Applications Conference (COMPSAC 2004) and COMPSAC 2005.
- The 9th International Enterprise Distributed Computing Conference (EDOC 2005).

Professional Affiliations
- Member of the Institute of Electrical and Electronics Engineers (IEEE).

References
- Available on request.