

MICHAEL RUTH

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EDUCATION

- Ph.D. Engineering and Applied Sciences, University of New Orleans
Dissertation: "Automating Regression Test Selection for Web Services"
Advisor: Dr. Shengru Tu
Awarded the Crescent City Doctoral Scholarship
- M.S. Computer Science, University of New Orleans
Thesis: "Adapting Single-Request/Multiple-Response Messaging to Web Services"
Advisor: Dr. Shengru Tu
- B.S. Computer Science, University of New Orleans

TEACHING EXPERIENCE

- Fall 2009 Roosevelt University
CST 352/452 – Network Design
CST 368/468 – Internet Security
- Fall 2008/Spring 2009 Wagner College
CS 106 – Computer Competency Fundamentals
CS 107 – Networking and the Internet
CS 142 – Techniques of Programming (CS II)
CS 252 – Assembly Language
CS/MA 591 – Algorithm Analysis & Data Structures
IS 550 – E-Commerce (Advanced Web Development)
RFT 21 – Cyber-Politics (Wagner FYP)
- Fall 2007/Spring 2008 Lock Haven University of Pennsylvania
CISC 150 – Introduction to Computers
CISC 250 – Advanced Microcomputer Applications
CISC 260 – Project Management
- Fall 200X/Spring 200X University of New Orleans
CS 2467– Unix/C

RELATED EXPERIENCE

- Aug 2009-Present Roosevelt University Chicago, IL
Assistant Professor of Computer Science
- Continued research in Regression Test Selection as it applies to Web services

Aug 2008-May 2009 Wagner College Staten Island, NY

Visiting Assistant Professor of Computer Science

- Taught in Wagner's First Year Program which involves interdisciplinary learning through learning communities, writing composition instruction, and experiential learning
- Taught CS/MA 591 as overload to fit student and departmental needs
- Revised Computer Fundamentals Competency Proficiency Exam to fit the needs of the college
- Served department by participating in the development of curriculum changes
- Responsible for the maintenance/development of all departmental Web sites (Math, CS, and IS)
- Continued research in Regression Test Selection as it applies to Web services
 - Performed an empirical analysis of the regression test selection framework for Web services

Aug 2007-May 2008 Lock Haven University of Pennsylvania Lock Haven, PA

Visiting Assistant Professor of Computer Information Science

- Faculty advisor of ACM and Electronic Entertainment Society
- Served as a member of the Curriculum Committee
- Piloted transition towards computer-based training software for CISC 150
- Continued research in Regression Test Selection as it applies to Web services
 - Developed a benchmark for performance comparisons of RTS frameworks for Web services

Jul 200X-Aug 200X University of New Orleans New Orleans, LA

Research Assistant

- Principle research interests include: Web Services and Software Engineering
- Designed, developed many projects and experiments in my research area, specifically:
 - Messaging Patterns for Web Services
 - Studied messaging patterns for Web services interactions.
 - Developed frameworks for SRMR and callback message patterns for Web services
 - Studied influence of mobile clients on design decisions developing these frameworks
 - Testing Web Services
 - Studied Regression Test Selection and how it can be applied to Web services.
 - Developed an approach to apply safe RTS to Web services in an end-to-end manner.
 - Studied how to fit that approach into a larger systematic framework which monitors changes, performs RTS, and RT automatically.

Jun 2006 – Aug 2006 Naval Research Laboratory Stennis Space Center, MS

Computer Scientist

- Principle research areas: Object Oriented Databases, Smart Climatology, and Web services.
- Designed, developed many projects and experiments in my research area specifically:
 - Supported Ozone, an open source Object Oriented DBMS, for a variety of internal naval clients
 - Studied climate information to determine how climate anomalies, such as El Nino, affect the forecast information used to long-term support mission planning for a variety of naval vessels
 - Studied a variety of statistical analysis techniques, such as EOF Analysis, to help determine how climate anomalies affect the areas they occur in and what impact they will have
 - Applied thresholding to produce maps of areas providing direct results to mission planners

Aug 1999 – Jul 2003 Hibernia National Bank New Orleans LA

Network Operations System Analyst

- Monitored LAN/WAN connectivity to several hundred branch locations, with over 5,000 users,

geographically located in Louisiana and southeastern Texas

- Diagnosed and resolved network issues requiring in-depth knowledge of NT, UNIX, and Novell servers, Cisco interconnection equipment, and telecommunications systems

PUBLICATIONS

Refereed Journals:

- Ruth, M., Ionescu, A., "**Cyber-Politics: Developing an Interdisciplinary Learning Community in an Election Year**". Journal of Computing Sciences in Colleges, 2009 (to appear)
- Ruth, M., Lin, F., and Tu, S., "**Applying Safe Regression Test Selection Techniques to Java Web Services**". International Journal of Web Service Practices, 2006, Vol. 2, Issue 1-2, pp. 1-10
- Ruth, M., Lin, F., and Tu, S., "**A Client-side Framework for Resumable Applications to Utilize Web Services With SRMR Callbacks**", International Journal of Web Service Practices, 2005, Vol. 1, Issue 1 pp. 73-88

Refereed Conferences/Workshops:

- Ruth, M., Tu, S., "**Empirical Studies of a Decentralized Regression Test Selection Framework for Web Services**", Proceedings of the 2008 Workshop on Testing, Analysis, and Verification of Web Services and Applications, (TAV-WEB '08), pp. 8-14, Seattle, Washington, Jul. 2008
- Ruth, M., "**Concurrency in a Decentralized Automatic Regression Test Selection Framework for Web Services**", Proceedings of the Mardi Gras Conference, (SIGAPP MG'08), Art. 7, Baton Rouge, LA, Feb. 2008
- Ruth, M., Oh, S., Loup, A., Horton, B., Gallet, O., Mata, M., Tu, S., "**Towards Automatic Regression Test Selection for Web Services**", International Workshop on Testing Emerging Software Technology 2007 (TEST '07), pp. 729-736, Beijing, China, Jul. 2007
- Ruth, M., and Tu, S., "**Applying Safe Regression Test Selection to Web Services**", Proceedings of the International Conference on Internet and Web Applications and Services (ICIW'07), Art. 47, Morne, Mauritius, May 2007
- Lin, F., Ruth, M., and Tu, S., "**Applying Safe Regression Test Selection Techniques to Java Web Services**", Proceedings of the International Conference on Next Generation Web Services Practices (NWeSP'06), pp. 133-140, Seoul, South Korea, Aug. 2006
- Ruth, M., Lin, F., and Tu, S., "**A Client-Side Framework Enabling Callbacks from Web Services**", Proceedings of the European Conference on Web Services (ECOWS'05), pp. 105-116, Vaxjo, Sweden, Nov. 2005
- Ruth, M., Lin, F., and Tu, S., "**A Framework for Web Services with Callbacks for Resumable Clients**", Proceedings of the International Conference on Next Generation Web Services Practices (NWeSP'05), pp. 412-417, Seoul, South Korea, Aug. 2005
- Ruth, M., Lin, F., and Tu, S., "**Adapting Single-Request/Multiple-Response Messaging to Web Services**", Proceedings of the Annual International Computer Software and Applications Conference (COMPSAC'05), pp. 287-292, Edinburgh, UK, Jul. 2005

REFERENCES

Dr. Shengru Tu
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Dr. Susan Strayer
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Dr. Adrian Ionescu
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