# Seth Michael Holloway

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## Objective

To develop cool applications and pay the bills

## Education

**Ph.D. Software Engineering — Adviser: Dr. Christine Julien** *May 2011*
*The University of Texas at Austin*, Austin, TX
Dissertation: "Simplifying the Programming of Intelligent Environments" (usability in smart homes)

**M.S.E. Software Engineering — GPA 3.96/4.00** *May 2007*
*The University of Texas at Austin*, Austin, TX
Thesis: "Developing Collaborative Applications Using Sliverware"

**B.S. Electrical & Computer Engineering — GPA 3.78/4.00** *August 2005*
*The University of Texas at Austin*, Austin, TX

## Career History

**Software Developer, Entrepreneur**, *Self-employed* *Summer 2011 - Present*

- Created web and mobile applications using a range of technologies, frameworks, and platforms including Facebook, iOS, Java, HTML/CSS, JavaScript, Ruby on Rails 3, PHP, Python, MySQL, SQLite, PostgreSQL, MongoDB, node.js, Google App Engine, Heroku, Amazon EC2/AWS, and other Cloud platforms.
- Improved search engine ranking (SEO) of web properties to increase traffic.
- Worked with several advertising networks in search of competitive payouts and acceptable ads.
- Performed customer interviews, market research, product management and project management duties.

**Software Engineer (Part-time)**, IBM (Lotus) *Fall 2006 - Spring 2011*

- Automated the build verification test (BVT) and JUnit test suite using STAF/STAX, Python, bash, batch, and Rational Functional Tester (RFT), saving over 80 person-hours per week
- Using agile development processes, I developed an automated test results summary web application in PHP that provided an instant summary in a central location, reducing data collection time, eliminating human errors, and improving team communication
- Optimized and componentized the Eclipse-style PDE build, significantly increasing build's speed (from eight hours to four hours per build), consumability, and maintainability

**Extreme Blue (Technical Intern)**, IBM *Summer 2006*

- Participated in an agile four-person business/technical team to create an online consultant scheduling system using AJAX and J2EE
- Performed market research to determine strengths and weaknesses of related products and identify remaining technical problems and approaches
- Developed GUI and back-end Java components, collaborated on MySQL database design

**Software Engineer (Intern)**, IBM (Tivoli) *Summer 2005 - Spring 2006*

- Assisted in QA (integration and system tests) for multiple product releases
- Developed an IBM open source silent installation application (installSTAF) for rapid deployment of STAF on multiple operating systems saving an average of 30 minutes per installation
- Installed and managed laboratory hardware and software allowing developers to focus on programming

**Campus Liaison**, Texas Instruments *Spring 2005*

- Coordinated, scheduled, and led presentations and recruiting events to increase TI's visibility and applicant pool on the UT campus
- Evangelized for TI through recruiting presentations and exemplary behavior
- Provided insight into student-job-seekers' mentality and reported new ways to reach top talent

**Product Engineer (Co-op)**, Texas Instruments *Summer - Fall 2004*

- Collaborated on extensive web-based program using LAMP stack that automated data analysis methods and common engineering tasks, saving valuable time and increasing the amount of good product
- Developed new statistical algorithms using DataPOWER to determine chip quality, positively affecting data analysis
- Led meetings and organized large social events as President of the Co-op Social Committee

**Process Engineer (Co-op)**, Texas Instruments *Fall 2003*

- Trained engineers on *sameness* data analysis method improving co-workers' competencies
- Qualified furnace processes, providing 10% additional diffusion manufacturing capacity

## Academic Roles

**Research Assistant**, Mobile & Pervasive Computing Group *Spring 2006 - Present*

- Developed a RESTful mobile/pervasive computing middleware to speed the adoption of smart homes using the web of things. Demonstrated using Java ME and Ruby on Rails

**Webmaster and Sysadmin**, Mobile & Pervasive Computing Group *Spring 2006 - Present*

- Developed a system utilizing Java, XML, and HTML to quickly update the group's publications listings
- Setup and maintained computing infrastructure including SVN, htaccess, and MediaWiki
- Created and maintained several web sites, including basic SEO: *http://mpc.ece.utexas.edu/*, *http://www.edge.utexas.edu/se/*, *http://www.edge.utexas.edu/sse/*

**Teaching Assistant**, EE382C Project Management — Professor McCann *Fall 2009, Spring & Fall 2010*

- Taught and graded the assignments of 20+ students per semester, ultimately receiving approval ratings over 4.7/5.00 in the anonymous instructor surveys

## Selected Publications

S. Holloway and C. Julien. "**The Case for End-User Programming in Ubiquitous Computing Environments**," in *Proceedings of the Workshop on the Future of Software Engineering Research*. 2010.

S. Holloway, D. Stovall, and C. Julien. "**What Users Want From Smart Environments**," *Tech Report TR-UTEDGE-2009-008*, The Center for Excellence in Distributed Global Environments. 2009.

S. Holloway, D. Stovall, J. Lara-Garduno, and C. Julien. "**Opening Pervasive Computing to the Masses Using the SEAP Middleware**," in *Proceedings of Middleware Support for Pervasive Computing Workshop*. 2009.

D. Stovall, S. Holloway, J. Lara-Garduno, and C. Julien. "**A Demonstration of Pervasive Device Integration with SEAP-based Middleware**," in *Proceedings of Middleware 2008 Companion*. 2008.

S. Holloway, D. Stovall, A. Dalton, and C. Julien. "**So Many Sensors, So Little Data**," in *Proceedings of the International Workshop on Software Architectures and Mobility*. 2008.

S. Holloway, D. Stovall, A. Dalton, T. Petz, and C. Julien. "**ROCC: A Communication Overlay Abstraction for Wireless Users**," in *Proceedings of the International Workshop on Cooperative Distributed Systems*. 2008.

S. Holloway, A. Griffith, A. Dalton, D. Stovall and C. Julien. "**SASSI: the Sliverware Architecture for Sensor Systems**," in *Proceedings of the International Conference on Embedded Sensor Systems*. 2007.

S. Holloway and C. Julien. "**Developing Collaborative Applications Using Sliverware**," in *Proceedings of the 14th International Conference on Cooperative Information Systems*. 2006.

## Skills

***Programming:*** Java, HTML/CSS, bash, batch, JavaScript, STAF/STAX, Rational Functional Tester, LaTeX, Ruby on Rails, Python, PHP, Visual Basic, SQL, Expect, WinTask, Injection, HyperScript, C++, C, Assembly

***Frameworks, Tools and Platforms:*** jQuery, facebook/fbxml, Google App Engine, Heroku, Git, SVN, TDD, JUnit, agile development

***Operating Systems:*** Windows, Mac OS X, Linux (Ubuntu, Red Hat, SUSE), UNIX (AIX, Solaris)

***Usability and Design:*** Experimental design, user interviews, surveys, paper prototypes, A/B test

## Leadership Activities

**Co-founder, President**, Students in Software Engineering (SSE) *Summer 2008 - Spring 2011*

**Mentor**, Undergraduate and graduate student mentor *Fall 2007 - Spring 2011*

**Co-founder**, Austin Software Mentorship (ASM) *Fall 2009*

**Campus Liaison**, Texas Instruments' liaison to UT *Spring 2005*

**President**, Texas Instruments Co-op Social Committee *Summer & Fall 2004*

## Awards and Honors

**Thrust Fellow**, The University of Texas at Austin *2005 - 2009*

**U.S. Patent Filed**, "Method and system to determine user skill using natural language input" *2008*

**MCD Fellow**, The University of Texas at Austin *2005 - 2007*

**College Scholar**, The University of Texas at Austin *2003 - 2005*

**Runner-up**, Moore Elementary Recycling Slogan Contest