

AMANDA SWEARNGIN

Computer Science & Engineering, University of Washington, Seattle, WA, 98195
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EDUCATION

University of Washington

Ph.D. in Computer Science

Began September 2015

University of Nebraska - Lincoln

Master of Science in Computer Science

May 2012

GPA: 3.91

Thesis Title:

CogTool-Helper: Leveraging GUI Functional Testing Tools to Generate Predictive Human Performance Models

University of Nebraska - Lincoln

Bachelor of Science in Computer Science

May 2010

GPA: 3.62

Major GPA: 3.76

REFEREED CONFERENCE PUBLICATIONS

Amanda Swearngin, Myra B. Cohen, Bonnie E. John, Rachel K.E. Bellamy. *Human Performance Regression Testing*. International Conference on Software Engineering (ICSE), pages 152 - 161, 2013. (acceptance rate: 18.5%)

· Collaboration with **IBM Research**

Amanda Swearngin, Myra B. Cohen, Bonnie E. John, Rachel K.E. Bellamy. *Easing the Generation of Predictive Human Performance Models from Legacy Systems*. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI), pages 2489 - 2498, 2012. (acceptance rate: 23%)

· Collaboration with **IBM Research**

Sandeep Kaur Kuttal, Anita Sarma, **Amanda Swearngin**, Gregg Rothermel. *Versioning for Mashups — An Exploratory Study*. International Symposium on End User Development (IS-EUD), pages 25 - 41, 2011. (acceptance rate: 27%)

Amanda Swearngin, Berthe Y. Choueiry, Eugene C. Freuder. *A Reformulation Strategy for Multi-Dimensional CSPs: The Case Study of the SET Game*. Symposium on Abstraction, Reformulation, and Approximation (SARA), pages 107 - 116, 2011.

REFEREED WORKSHOP PUBLICATIONS

Amanda Swearngin, Berthe Y. Choueiry, Eugene C. Freuder. *Multi-Dimensional Models Facilitate Automatic Reformulation: The Case Study of the SET Game*. Tenth International Workshop on Constraint Modeling and Reformulation (ModRef), pages 132 - 146, 2011.

PATENTS

Linking graphical user interface testing tools and human performance modeling to enable usability assessment, Rachel K. E. Bellamy, Myra B. Cohen, Bonnie E. John, Padmanabhan Santhanam, **Amanda Swearngin**, US Patent App. 13/672,237, 2012

PRESENTATIONS

Easing the Generation of Predictive Human Performance Models from Legacy Systems, Conference presentation at CHI (SIGCHI Conference on Human Factors in Computing Systems), May 2012.

An Update on COMET (Community Event-based Testing), Workshop presentation at TESTBEDS, co-located with ICST (International Conference on Software Testing, Verification, and Validation), March 2011.

RESEARCH EXPERIENCE

University of Washington

Graduate Research Assistant

Advisors: Andy Ko and James Fogarty

September 2015 - Present

Seattle, WA

- Researching methods for addressing change in web interfaces through the development of a system to detect change, and effectively educate the user of changes in web interfaces.

University of Nebraska - Lincoln

Graduate Research Assistant

Advisor: Dr. Myra Cohen

August 2010 - May 2012

Lincoln, NE

- Developed *CogTool-Helper*, which uses automatic UI-model extraction and test case generation to automatically create storyboards and models for CogTool, a tool for predictive human performance modeling of user interfaces.

University of Nebraska - Lincoln

Undergraduate Research Assistant

Advisor: Dr. Myra Cohen

January 2010 - May 2010

Lincoln, NE

- Researched Combinatorial Interaction Testing (CIT) techniques and developed educational tutorials for the CIT web portal.

Holland Computing Center

Undergraduate Research Assistant

Advisor: Dr. David Swanson

Summer 2008 - Spring 2010

Lincoln, NE

- Completed UCARE (Undergraduate Creative Activities and Research Experience) project designing and implementing an interactive web portal for viewing real-time computing statistics.

Project Name: *MyHCC - An Interactive Window into Campus Computing Resources*

INDUSTRY EXPERIENCE

Microsoft Corporation

Software Development Engineer II

July 2012 - September 2015

Fargo, ND

- Designed, developed, and tested features for the web-client of the next version of Dynamics AX, Microsoft's new cloud-based ERP solution.
- Developed visual regression testing tools for validating the product across multiple browsers and environments.
- Mentored and trained 3 new members of the team to facilitate quicker onboarding.

Cerner Corporation

Software Engineering Intern

Summer 2010

Kansas City, MO

- Conducted static analysis for code improvement and refactoring, conducted performance analyses, and implemented code optimizations in C++.

Cerner Corporation

Software Engineering Intern

Summer 2009

Kansas City, MO

- Designed UI and implemented interactive patient summary app for iPhone using JavaScript, CSS, and HTML.

WORK HISTORY

Cornerstone Campus Ministries

Webmaster & Student Intern

Fall 2008 - Spring 2010

Lincoln, NE

Girl Empowerment and Mentoring (G.E.M.) for Computing Project

Mentor

Fall 2008 - Spring 2009

Lincoln, NE

TEACHING EXPERIENCE

UW Computer Science - CSE 311 - Discrete Math
Tutor – 2015 - Present

ACADEMIC AWARDS & ACHIEVEMENTS

Member of Upsilon Pi Epsilon Computer Science Honor Society – 2008 - 2012
Google Anita Borg Memorial Scholarship Finalist (One of 60 finalists out of 1200 applicants) – 2011
CRA-W Grad Cohort Participant – 2011
Google Diversity Award Recipient to attend ISSTA Conference – 2011
Grace Hopper Celebration of Women in Computing Scholarship Recipient – 2010
University of Nebraska - Lincoln Computer Science Cecilia Daly Scholarship – 2009 - 2010
UCARE - Undergraduate Creative Activities and Research Experience Project Grant – 2009 - 2010
Dean's List in College of Arts and Sciences – Spring 2007, Fall 2008, Spring 2010

UNDERGRADUATE AND GRADUATE INVOLVEMENT

ChickTech Seattle
Workshop volunteer & mentor – 2015 - Present
UW Graduate Women's Organization
Mentor – 2015 - Present
Upsilon Pi Epsilon
Treasurer – 2010 - 2012
Computer Science Graduate Student Association Board
Member – 2011 - 2012
Computer Science Department Curriculum Committee
Graduate Representative – 2010 - 2012
Kappa Phi Club (Christian Women's Organization)
Founding member, Treasurer, and Assistant Sponsor – 2007 - 2012
Circle K International (Community Service/Leadership Organization)
Treasurer and Vice-President – 2007 - 2010