

HOLLY M. ESQUIVEL

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OBJECTIVE

A research or software engineering internship for summer 2010 focusing on routing protocols, networking, spam, security, or software development.

EDUCATION

University of Wisconsin - Madison - Madison, WI

Ph. D in Computer Sciences, May 2012

Masters in Computer Sciences, May 2009

Field of Study: **Networking, Routing Protocols, Spam Filtration Mechanisms**, GPA: 3.7/4.0

Selected Coursework: Introduction to Computer Networks, Introduction to Computer Security, Analysis of Software Artifacts, Advanced Computer Networks, Building Fast Networks, Rethinking the Internet Architecture

University of Nebraska at Kearney (UNK) - Kearney, NE

Bachelor of Science, May 2007, Summa Cum Laude, University Honors Program Graduate

Major: **Computer Science Comprehensive** Minor: **Mathematics**, GPA: 3.9/4.0

Iowa State University - Ames, IA

National Student Exchange Student, Spring 2006, GPA: 4.0/4.0

SKILLS

Languages Java, Ruby, C++, C, Adobe Flex, ActionScript, JSP, MySQL, HTML, CSS.

Software Eclipse, LaTeX, Microsoft Word, Excel and Access, Adobe Flash & Photoshop.

Operating systems Windows XP, Red Hat Linux 5, Ubuntu.

RELATED EXPERIENCE

Graduate Research Assistant, February 2008 – Present

University of Wisconsin - Computer Sciences Department, Madison, WI

- Architected, implemented and evaluated a new pay for service routing protocol
- Conducted an empirical study of emails logs using a new spam filtration mechanism

CS302 Lecturer, January 2009-May 2009

University of Wisconsin - Computer Sciences Department, Madison, WI

- Developed lectures and take home exercises for guided practice
- Demonstrated competency in working with students with diverse needs
- Collaborated with peers to meet departmental goals

Speed Team Software Engineer, May 2008-August 2008

IBM Rochester Support Center, Rochester, MN

- Architected and implemented a GUI flowchart creation system
- Interfaced the system with an existing DB2 database
- Configured PHP and Apache on Red Hat Enterprise Linux 5.2

Undergraduate Researcher, Summer 2006

CRA-W Distributed Mentor Project, Newark, DE

- Researched Web Application testing and various comparison oracles
- Developed an open source tool, WebVizOr, for Web Application testing
- Conceptualized a new comparison oracle for implementation in WebVizOr

PUBLICATIONS

Conference Publications

1. H. Esquivel, T. Mori and A. Akella, "The Effectiveness of IP Reputation for Spam Filtering," Second International Conference on Communication Systems and Networks (COMSNETS), January 2010, to appear.
2. H. Esquivel, T. Mori, and A. Akella, "Router-Level Spam Filtering Using TCP Fingerprints: Architecture and Measurement-Based Evaluation," Sixth Conference on Email and Anti-Spam (CEAS) 2009, July 2009.
3. S. Sprenkle, L. Pollock, H. Esquivel, B. Hazelwood, and S. Ecott, "Automated Oracle Comparators for Testing Web Applications," 18th IEEE International Symposium on Software Reliability Engineering, IEEE, November 2007.

Technical Reports

1. T. Mori, H. Esquivel, A. Akella, A. Shimoda, and S. Goto, "Understanding the World's Worst Spamming Botnet," Univ. of WI-Technical Report 1660, June 2009.
2. H. Esquivel, C. Muthukrishnan, F. Niu, A. Akella, and S. Chawla, "RouteBazaar: An Economic Framework for Flexible Routing," Univ. of WI-Technical Report 1654, May 2009.

Poster Presentations

1. B. Hazelwood, H. Esquivel, S. Sprenkle and L. Pollock, "WebVizOr: A Fault Detection Visualization Tool for Web Applications," Midwest Women in Computing Conference (MidWIC), Greencastle, Indiana, September 2006.

Oral Presentations

1. "Utilizing Idle CPU Usage in an Automated Fashion for RSA Number Factorization." H. Esquivel, H. Ngondo and T. May. National Conference on Undergraduate Research (NCUR) 2007, San Rafael, CA, April 2007.

HONORS

National Defense Science and Engineering Graduate (NDSEG) Fellowship, 2008-2011
CEAS 2009 Google Travel Grant Recipient, 2009
University of Wisconsin – Madison Advanced Opportunity Fellowship, 2007
CRA Outstanding Undergraduate Award – Honorable Mention, 2007
UNK Robert Rosenlof Honors Scholar, 2006-07
UNK Regent Scholar, 2003-07

ACTIVITIES

UW – Madison Computer Sciences Welcome Weekend for Prospective Graduate Students – Chair
UW – Madison Women's Association for Computing Machinery (WACM) – Chapter President
UW – Madison Student Association for Computing Machinery (SACM) – Coffee Czar
UNK Phi Kappa Phi Honor Society
UNK ACM - Chapter President
UNK Computer Science and Information Systems Student Fellow

OTHER EXPERIENCE

Manager, McDonalds, Kearney/Lincoln, NE, June 2000 – April 2007

COMMUNITY SERVICE

IBM - Take Our Children to Work Day, July 2008

- Assisted children with programming a robot to transverse a maze

Math Madness and Reading Rendezvous, Spring & Fall 2005

- Helped Kearney elementary students with math games and reading activities