

Aaron Schulman

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Research Interests

Networking, wireless networks, visualizing of network measurements, and incentives.

Education

University of Maryland, College Park

Ph.D, Department of Computer Science
Started Fall 2007, expected graduation Summer 2012.
Advisor: Neil Spring

University of Maryland, College Park

B.S. Computer Science, May 2007. Minor: Philosophy

Conference Publications

1. *On the Fidelity of 802.11 Packet Traces*
Aaron Schulman, Dave Levin and Neil Spring
PAM 2008 (Passive and Active Measurement Conference) *32% Acceptance*
<http://www.cs.umd.edu/~schulman/docs/pam08-fidelity.pdf>

Workshop Publications

1. *Visualizing Real-Time Network Resource Usage (NetGrok)*
Ryan Blue, Cody Dunne, Adam Fuchs, Kyle King and Aaron Schulman
VizSEC 2008 (Workshop on Visualization for Cyber Security) *72% Acceptance*
<http://www.cs.umd.edu/~schulman/docs/vizsec08-netgrok.pdf>

Research Experience

University of Maryland (advisor: Neil Spring), College Park, MD

Research Assistant

2007-Present

Involved in various areas of systems research including: wireless networking, visualizing network measurements, and incentive compatible systems. Using a visualization, we have shown that well known wireless network traces lack fidelity. Currently, we are researching techniques for end user diagnosis of faults in wireless networks.

Microsoft Research India (mentors: Ramjee, Navda, and Padmanabhan), Bangalore, Karnataka

Research Intern

Summer, 2009

Microsoft Research (mentor: Galen Hunt), Redmond, WA

Research Intern

Summer, 2008

Researched and implemented a new system that removes the need for synchronizing application data between PCs and mobile devices; without modifying existing PC and mobile applications.

Professional Experience

KEYW Corporation, Annapolis Junction, MD

Software Engineer

2008-Present

Advising the development of quick reaction software applications.

Northrop Grumman Mission Systems: Essex Windermere, Annapolis, MD

Software Engineer

2007-2008

Designed and implemented software and hardware for a wireless system.

Consortium Research Fellows Program: National Defense University, Fort McNair, DC

Research Fellow

2005-2007

Assisted in the design, implementation and presentation of an Information Assurance Laboratory used in executive briefings, presentations to foreign dignitaries and masters level coursework.

Teaching Experience

University of Maryland: CMSC412 Operating Systems

Graduate Teaching Assistant

Fall, 2008

Taught twice weekly, one hour discussions sections. Administered a semester long course project. Graded homework, projects, and the final exam. The projects consisted of adding the following features to an open source educational kernel: process listing, signals, scheduling, synchronization, paging, virtual memory, and an inodes based file system.
<http://www.cs.umd.edu/class/fall2008/cmcs412>

University of Maryland: CMSC420 Data Structures

Undergraduate Teaching Assistant

Spring, 2006

Revised and improved the specification for a semester long project. Answered students' questions regarding the project.

Peer Review Activity

- External reviewer, ACM SIGMOBILE Mobile Computing and Communications Review (MC2R) 2009

Data Sets

1. *802.11 traces collected at SIGCOMM 2008*

Aaron Schulman, Dave Levin and Neil Spring

http://www.cs.umd.edu/projects/wifidelity/sigcomm08_traces

Press

- NetGrok featured in: McRee, Russ "Security Visualization Tools" *Linux Magazine*, Sep. 2009

References

Neil Spring

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