Vaspol Ruamviboonsuk

Computer Science and Engineering
University of Michigan, Ann Arbor, MI 48109-2121
Email: vaspol@umich.edu
Phone: (678)-800-5952
https://vaspol.me

EDUCATION

Ph.D. student in Computer Science and Engineering   Expected 2019
University of Michigan, Ann Arbor, MI
Advisor: Prof. Harsha V. Madhyastha

M.S. in Computer Science.   2016
University of Michigan, Ann Arbor, MI
Advisor: Prof. Harsha V. Madhyastha

B.S. with Distinction in Computer Science   2014
University of Washington, Seattle, WA
Advisor: Prof. Richard Ladner
Thesis: DigiTaps: Eyes-free Number Entry Method with Minimal Voice Feedback

PUBLICATIONS

Vroom: Accelerating the Mobile Web with Server-Aided Dependency Resolution
Vaspol Ruamviboonsuk, Ravi Netravali, Muhammed Uluyol, and Harsha V. Madhyastha
ACM SIGCOMM 2017, Los Angeles, CA, August 2017

Demonstration of the Myria big data management service
Daniel Halperin, Victor Teixeira de Almeida, Lee Lee Choo, Shumo Chu, Paraschos Koutris, Dominik Moritz, Jennifer Ortiz, Vaspol Ruamviboonsuk, Jingjing Wang, Andrew Whitaker, Shengliang Xu, Magdalena Balazinska, Bill Howe, and Dan Suciu
2014 ACM SIGMOD international conference on Management of data, Snowbird, UT, November 2014

Tapulator: A non-visual calculator using natural prefix-free codes
Vaspol Ruamviboonsuk, Shiri Azenkot, and Richard E Ladner
Poster session, the 14th international ACM SIGACCESS conference on Computers and accessibility (ASSETS 2012), Boulder, CO, October 2012

RESEARCH EXPERIENCE

Improving mobile web performance with aids from web servers
Advisor: Prof. Harsha V. Madhyastha   *10/2015 - Present*

- Web pages are slow because of underutilization of network and computational resources that stems from parsing and execution of resources prohibits the discovery of additional resources.
- Designed a system that decouples discovery of resources from parsing and execution by leveraging recent advances of web optimization techniques such as HTTP/2 PUSH and Link preload headers and was able to improve the median page load time by 5 seconds. [SIGCOMM'17]

Improving latency from clients to cloud services
Advisor: Prof. Harsha V. Madhyastha   *05/2015 - 10/2015*

- Analyzed internet measurement data to see patterns of front-end latency degradation
- Designed and implemented a client redirection heuristic to minimize the latency between the client and the server.

Numerical input gestures for visually-impaired people
Advisor: Prof. Richard Ladner   *2011 - 2014*

- Designed special gestures for inputting numbers on smartphones by leveraging multi-touch input surface for blind smartphone users. [ASSETS'12]

Myria, Big Data as a Service
Advisor: Prof. Magdalena Balazinska   *2012 - 2014*

- Implemented a database operator in the system. [SIGMOD'14]

TEACHING EXPERIENCE	**Graduate Student Instructor**	1/2017 - 4/2017

Department of Computer Science and Engineering, University of Michigan, Ann Arbor, MI

- EECS 498: Introduction to Distributed Systems (Winter 2017)

Teaching Assistant   9/2012 - 3/2014

Department of Computer Science and Engineering, University of Washington, Seattle, WA

- CSE 344: Introduction to Data Management (Fall 2012, Winter 2013, Winter 2014)

WORK EXPERIENCE	**Software Engineer Intern**	9/2017 - 12/2017

Google Inc. Mountain View, CA
Team: Ads Quality.
Project: Work on understanding the implications of different web page resource prefetching strategies.

Software Engineer Intern   5/2017 - 8/2017

Google Inc. Seattle, WA
Team: Flywheel.
Project: Worked on a prototype of a server-side web page rendering system to improve the experience of browsing the web.

Graduate Student Research Assistant   5/2015 - Present

Advisor: Prof. Harsha V. Madhyastha.
Electrical Engineering and Computer Science Department, University of Michigan, Ann Arbor, MI

Software Developer Engineer in Test Intern   6/2013 - 9/2013

Microsoft. Redmond, WA
Project: Extended Windows Intune test framework to support fuzz testing, developed test modules using the extended features, and incorporated the module as part of the weekly test suite.

Software Engineer Intern   6/2012 - 8/2012

Cobalt. Seattle, WA
Project: Designed and developed an internal monitoring tool that periodically aggregates application server logs for checking system health.

AWARDS	• 2013 Mary Gates Research Scholarship. University of Washington, Seattle, WA

SKILLS	Most of my work is done in C/C++, Go, Java, and Python, but I am most familiar with Go, Java, and Python. I also have some experience working with networking tools such as iptables, and tcpdump. I am also familiar with interacting with android smartphones via ADB.