Talia Lily Ringer

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http://tlringer.github.io/

EDUCATION

University of Washington *2015 – Present*
Ph.D. in Computer Science
M.S. in Computer Science *2017*
Advisor: Dan Grossman
Programming Languages & Software Engineering

University of Maryland, College Park *2008 – 2012*
B.S. in Mathematics and Computer Science
Advisor: Lawrence Washington
Honors Thesis: An Elliptic Curve Threshold Key Establishment Scheme

HONORS & AWARDS

NSF GRFP Fellow *University of Washington*
Graduated with Honors in Computer Science *University of Maryland*
Graduation Speech Finalist *University of Maryland*
Corporate Scholar *University of Maryland*

PUBLICATIONS

Talia Ringer, Dan Grossman, and Franziska Roesner.
AUDACIOUS: User-Driven Access Control with Unmodified Operating Systems.
CCS 2016.

CURRENT RESEARCH

Proof Patching
Talia Ringer, Nate Yazdani, John Leo, and Dan Grossman
Proof brittleness is a major barrier to development in proof assistants like Coq. We are using differences in proofs of existing theorems to automatically generate patches for broken proofs that depend on those theorems.

PAST RESEARCH

Amazon Web Services: Automated Reasoning Group *Summer 2016*
Talia Ringer, Dan Grossman, Daniel Schwartz-Narbonne, and Serdar Tasiran
Designed and implemented a solver-aided domain-specific language to help developers write unit tests for web services.

TEACHING

University of Washington *Winter 2016*
Teaching Assistant for Compilers

University of Maryland, College Park *Spring 2012*
Teaching Assistant for Computer and Network Security

University of Maryland Academic Support & Career Development Unit *2010*
Tutor
Tutored student-athletes in mathematics and computer science.

INDUSTRY

Amazon *2012 – 2015*
Software Development Engineer
Worked with a team to develop the AmazonSupply website. Contributed to the development of an internal framework and reusable components used company-wide. Developed a data flow analysis tool for the framework and components. Participated in the launch of the service that enabled the partnership between Amazon and DonorsChoose. Launched Amazon Business marketplace. Served as a mentor for several engineers.

Amazon *Summer 2011*
Software Development Engineer Intern
Developed an internal Spring MVC web application to generate metadata for the AmazonSupply website in a safe and user-friendly manner. Enabled version control and staging for the metadata.

Carr Astronautics *2010 – 2011*
Corporate Scholars Program – Software Intern
Assisted in the development of a parallel image mosaicing application. Wrote code in C, MATLAB, and Java, dealing primarily with reading, altering, and writing TIFF images with associated geographic data. Awarded a scholarship through the University of Maryland's Corporate Scholars Program. Continued to work part-time during the school year.

MENTORSHIP

UW CSE *2015 – Present*
Mentor for undergraduate women and graduate students in computer science.

UW QMP *2016 – Present*
Mentor for LGBT students from any major.

TUNE House *2015 – 2016*
Mentor for a living-and-learning community for undergraduate women in computer science.

COMMITTEES

Artifact Evaluation Committee *POPL 2018*

ACTIVITIES

Club Northwest *2012 – Present*
Board Member *2015 – 2016*

NCAA Division I Cross-Country *2009*
Scholar-Athlete

University of Maryland Women in Mathematics *2008 – 2012*

SKILLS

Programming languages: Coq, OCaml, Rosette, Java, Ruby, Scala, C, MATLAB, JavaScript.
Other computer skills: Coq plugins, Android, Software Engineering, Spring MVC, Linux.
Languages: English, Hebrew.

INTERESTS

Academic: Verification, proof engineering, proof search, domain-specific languages, type theory, category theory, formal methods, computer security, program analysis, program synthesis, abstract algebra, cryptology.

Personal: Distance running, triathlon, logic and number puzzles, esoteric programming languages, singing, learning natural languages, piano composition.