Hannah Quay-de la Vallee

CONTACT
INFORMATION

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EDUCATION

Brown University, Providence, Rhode Island, USA

PhD — Computer Science **In progress**

- Advisor: Dr. Shriram Krishnamurthi, Dept. of Computer Science
- Current Research: Integrating usability and security in system design. Developing systems and interfaces that encourage secure user behavior without sacrificing usability and comfort.

MS — Computer Science **May 2013**

Bard College, Annandale-on-Hudson, New York, USA

BA — Mathematics and Computer Science **May 2010**

WORK
EXPERIENCE

Mozilla, San Francisco, California, USA

Intern **Summer 2013**

Google, Mountain View, California, USA

Intern **Summer 2014**

PUBLICATIONS

Hannah Quay-de la Vallee, Paige Selby, and Shriram Krishnamurthi. 2016. "On a (Per)Mission: Building Privacy Into the App Marketplace." *(To appear, SPSM '16)*.
We present two apps that help users manage their privacy, using ratings of app permissions: a privacy-conscious marketplace to help users find privacy-respecting apps, and an assistant that helps users manage the permissions of their already-installed apps. We discuss several components of our apps, such as gathering permission ratings and presenting those ratings in a way that users can understand.

Hannah Quay-de la Vallee, James M. Walsh, William Zimrin, Kathi Fisler, and Shriram Krishnamurthi. 2013. "Usable Security as a Static Analysis Problem." *(Onward! '13)*.
We explore the application of program analysis to usably secure design. We formulate several design properties that could be formally verified.

Joe Gibbs Politz, Hannah Quay-de la Vallee, and Shriram Krishnamurthi. 2012. "Progressive Types." *(Onward! '12)*.
We develop and build a type system that allows programmers to choose which classes of errors they would like to be caught by the type system and which should be allowed to cause runtime exceptions.

Benjamin S. Lerner, Matthew J. Carroll, Dan P. Kimmel, Hannah Quay-De La Vallee, and Shriram Krishnamurthi. 2012. "Modeling and Reasoning About DOM Events." *(WebApps '12)*.
We develop a model of the Document Object Model based on the Level 3 Core Specification. This allows us to investigate event dispatch through the DOM and expose inconsistencies in the specification itself and across different browser's implementations of the specification.

Hannah Quay-de la Vallee. 2010. "Studying Algebraic Theories Through the Lens of Term Rewriting Systems." Undergraduate thesis advised by Dr. Robert McGrail.
http://cs.brown.edu/~hannahqd/SProj/SProj.pdf
We use term rewriting systems as a lens prove the decidability of the equational theories of quandles and racks. These systems are then used to investigate the properties of other algebraic theories.

COMMUNITY
ACTIVITIES

Brown University Women in Computer Science, Graduate Student Mentor 2011-2014.
Brown University Computer Science Department, Recruitment Coordinator 2012.

PROGRAMMING
LANGUAGES

Scala, Java, Ruby on Rails, Racket, LaTeX.

SPOKEN
LANGUAGES

English (native), French (conversational).