

Sarah Ann Scheffler

CONTACT INFO

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PERMANENT ADDRESS

36 Moraine St
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EDUCATION

First-year Ph.D. candidate, Computer Science (Network security and cryptography), Boston University, GPA 4.0
Bachelor of Science, Computer Science and Mathematics, Harvey Mudd College (HMC), GPA 3.4
Graduated with Distinction and with Honors in Computer Science, May 2015

HONORS, AWARDS, CONTESTS

Clinic Team Award, HMC Computer Science Department (2015, awarded for an exceptional capstone project)
International Mathematical Competition in Modeling: Meritorious Winner (2014), Honorable Mention (2015)
Windward International Collegiate Programming Championship: Quarterfinalist (2014, 2013), Semifinalist (2012)
Dean's List (2012-2015)

RELEVANT COURSEWORK

Computer Science: Multi-Party Computation at Scale, Cryptography, Computer Networks, Computer Security, Algorithms, Data Structures, Computer Systems, Programming Languages, Software Development, Computability and Logic, Quantum Information

Mathematics: Cryptography, Number Theory, Abstract Algebra, Probability, Linear Algebra, Numerical Analysis, Real Analysis, Differential Equations

COMPUTER SKILLS

Programming: C++, C, C#, Objective-C, Java, Python, Haskell, Racket, Prolog
Software and Frameworks: SPDZ-2, Mathematica, R, Matlab, Maple, Sage, L^AT_EX

RESEARCH AND WORK EXPERIENCE

Codebreakers Coordinator Boston University Boston, MA July 2016 - Aug. 2016
As one of a team of three, created and taught a summer cybersecurity class for high-schoolers. Was responsible for creating the curriculum, creating class material and exercises, and leading classes.

Assistant Staff MIT Lincoln Laboratory Lexington, MA Sep. 2015 - June 2016
Worked in the Secure and Resilient Systems and Technology group within the Cybersecurity and Information Sciences division. Assisted in the implementation and testing of a library that adds confidentiality and integrity guarantees to the Accumulo database, protecting it against a malicious server or sysadmin.

Implementing Oblivious RAM MIT Lincoln Laboratory Lexington, MA Summer 2015
Designed and implemented an Oblivious RAM for the Accumulo database in Java, to hide a querying client's access patterns from a malicious server as part of a larger project within the Secure and Resilient Systems and Technology group.

Quantifying Latent Fingerprint Quality The MITRE Corporation and HMC Fall 2014 - Spring 2015
Worked on a team of four students to design, implement, and test a system that uses image processing and machine learning techniques to evaluate the suitability of crime scene fingerprint images for identification by Automated Fingerprint Identification Systems.

Statistical Testing of Cryptographic Entropy Sources NIST Gaithersburg, MD Summer 2014
Worked with Dr. Allen Roginsky in the Computer Security Division of the National Institute of Standards and Technology (NIST) to improve NIST's statistical tests for entropy sources in cryptographic random number generators. Also made adjustments to the process for generating large primes for cryptography. Wrote code in C++ and Python.

Grader/Tutor/Head Grader HMC, CS and Math Departments Claremont, CA Fall 2012 - Fall 2014
Tutored and graded students in the following classes: Programming Languages (2014); Principles of Computer Science, Multivariable Calculus, Linear Algebra, Differential Equations (2013); Intro to Computer Science, Calculus, Probability and Statistics (2012). Mentored students during tutoring hours, graded students' homework in each class, and managed graders for four classes (2013).

MISCELLANY

Treasurer People Respecting Individuals' Sexualities at Mudd Fall 2012 - Spring 2015
Working with the presidents, manage funds for the Harvey Mudd College club PRISM (People Respecting Individuals' Sexualities at Mudd).

Game Master Several Dungeons & Dragons campaigns May 2010 - Present
Responsible for creating the entire fantasy world and its interactions with the player characters in D&D, FATE, and other tabletop RPGs.