Amelia Holcomb

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ameliaholcomb.github.io

EDUCATION:

University of Waterloo, Waterloo, ON Sep 2019-present
- Thesis Masters in Computer Science; GPA: 96.75
- Selected Courses: Computational Vision, IoT & Intelligent Connectivity, Mobile Platform Security
- Thesis: Investigating the use of computer vision and IoT sensing to monitor forest carbon sequestration.

Yale University, New Haven, CT Sep 2012-May 2016
- Bachelor of Arts in Mathematics; GPA: 3.86; *cum laude*
- Selected Computer Science courses: Parallel Programming Techniques, Design & Analysis of Algorithms, Systems Programming & Computer Organization, Automated Decision Systems, Computer Networks

Harbin Institute of Technology, Harbin, China June 2013-Aug 2013
- Light Fellowship Award for Study Abroad in China
- Advanced Mandarin study, culminating in 2000 character essay on anti-poverty policies in China.

Bard High School Early College, New York City, NY Sep 2009-June 2012
- Associate of Arts degree (60 college credits) from Bard College; GPA: 4.0

EXPERIENCE:

Google Inc, New York, NY Apr 2017-June 2019
Software Engineer, Site Reliability
- Support Bigtable Service, Google's largest database by both bytes and QPS. Engineer for increased reliability, simplicity, and user isolation. Member of primary oncall rotation for Bigtable.
- Led migration of Kansas database onto Bigtable Service; won Feats of Engineering/Technical Infrastructure award for this work.
- Promoted to Level 4 Site Reliability Engineer

Computer Science Department, Yale University Sep 2015-Dec 2016
Course Manager/Teaching Assistant
Courses: Intro Computing, Data Structures & Programming Techniques, Design & Analysis of Algorithms
- Held office hours and one-on-one tutoring sessions to help students master key concepts and debug code
- Designed lesson plans and taught weekly 1.5 hour section
- Graded student exams and problem sets by providing written feedback and developing edge case tests
- Reviewed assignment specifications and curriculum to advise professor on clarity, difficulty, and content

Information and Technology Services, Yale University Jan 2014-May 2016
Student Hardware Specialist; Training Committee Coordinator
- Designed and implemented 2-month training curriculum for student workers, focused on hands-on learning
- Recognized as the top Student Tech employee of 2014-2015 for exceptional work on training curriculum

Yale Institute for Network Science, Yale University Oct 2013-May 2016
Research Assistant
- Programmed, ran, and collected data from mathematical simulations in R; performed statistical analyses and designed 5 expository figures; assisted in developing project concept and writing journal paper

RESEARCH:

- Holcomb, Perera, & Das. PQ-Fabric: A Permissioned Blockchain Secure from Both Classical and Quantum Attacks. [Preprint]
- Tong & Holcomb. Depth-Assisted Segmentation for Mobile Forest Inventories. [Draft under preparation]
- Isakov & Holcomb. Modeling the Role of Networks and Individual Differences in Inter-group Violence. PLOSOne (*Feb 1, 2016*).

SKILLS:

- Computer languages: Advanced in Python, C, Bash; proficient in Java, JavaScript, HTML/CSS, R.
- Human languages: Intermediate Mandarin; 7 years of study in reading, writing and speaking