

Han Zhang

Curriculum Vitae

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Research Interests

Program Analysis, Computer Networks, Security and Privacy, Mobile Systems, Internet of Things.

Education

2017–current **PhD student in Computer Science**, Carnegie Mellon University, Pittsburgh, PA.
Advisors: Yuvraj Agarwal, Matt Fredrikson.

2014–2017 **B.S. in Computer Science**, *With High Distinction*, University of Michigan, Ann Arbor, MI.

Publications

HotNets 2016 Towards Comprehensive Repositories of Opinions.
Han Zhang, Kasra Edalat Nejad, Amir Rahmati, and Harsha V. Madhyastha, 15th ACM Workshop on Hot Topics in Networks, Atlanta, GA, November 2016.

Honors and Awards

2019 Qualcomm Innovation Fellowship – Finalist

2015 Summer Undergraduate Research in Engineering Program, University of Michigan.

2014–2015 Undergraduate Research Opportunity Program, University of Michigan.

Experience

2017–current Graduated student at Carnegie Mellon University.

- Capture: Designing new Internet-of-Things network infrastructure to provide isolation across different devices. Also proposing new software architecture design to isolate networking components from each device drivers.
- GuardRail: Designed behavior specification language for mobile application developers to describe their apps usage of private data. Designed and implemented a policy-based enforcement system to verify apps' behaviors according to provided behavior policy.

2015–2017 Undergraduate research at University of Michigan, Computer Science and Engineering.
Advisor: Harsha Madhyastha.

- Developed an Android infrastructure that automatically infers recommendations without requiring user's active involvement, while preserving user privacy.
- Gained experience developing software systems to balance usability/functionality and privacy.

Summer 2016 Software Engineering Intern, Area 1 Security, Inc, Redwood City, CA.

2014-2015 Undergraduate research at Merit Network, Inc.

Mentor: Michalis Kallitsis.

- Implemented efficient anomaly detection algorithms to analyze high volume network traffics.
- Created web dashboard, in PHP, to interactively display IP heatmaps and analysis results.
- Managed MongoDB database to store traffic metadata and to provide backend API endpoints.

Teaching

Fall 2019 Teaching assistant, 15-440/640: Distributed Systems, Carnegie Mellon University.

Fall 2016 Teaching assistant, EECS 388: Intro to Computer Security, University of Michigan.