Colleen A. Josephson

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Education

Stanford University — Palo Alto, CA
PhD Candidate in Electrical Engineering — *June 2016 - Present*

Massachusetts Institute of Technology — Cambridge, MA
MEng and B.Sc. in Electrical Engineering and Computer Science — *Sept. 2014*

Academic Honors: 2017 Schlumberger Innovation Fellow, 2015 Stanford Graduate Fellowship, Eta Kappa Nu, Tau Beta Pi, 2013 MIT EECS 'SuperUROP'

Experience

Stanford University Department of Electrical Engineering — Palo Alto, CA
Graduate Research Assistant for Prof. Sachin Katti — *June 2016 - Present*
- Research in digital wireless communications

Cisco Meraki — San Francisco, CA
Wireless Firmware Engineer — *Nov. 2014 - Mar. 2016*
- Created system to propagate relevant client information across access points for smoother roaming
- Crated + organized a bi-weekly technical seminar series for the firmware team
- Implemented Splunk syslog integration for wireless products

MIT RLE Network Coding and Reliable Communications — Cambridge, MA
Graduate Research Assistant for Prof. Muriel Medard — *Sept. 2013 - Sept 2014*
- Master's thesis on network-coded gossip protocol for anonymous communication on heterogeneous networks
- Created GNU radio signal processing blocks in C++ to implement a network coding algorithm

ShotSpotter — Newark, CA
Signal Processing Intern — *Summer 2013*
- Designed and evaluated algorithms for noise reduction on outdoor sensors

Google — New York, NY
Software Engineering Intern — *Summer 2012*
- Designed, implemented and tested a Python API and query server for a new asset management system
- Created a significant design plan + documentation for the API

Skills

Languages: Python (Experienced), C (Proficient), C++ (Proficient), Java (Moderately Experienced), Go (Prior Experience), BASH/Shell Scripting (Proficient), LabView (Proficient), Matlab (Proficient)

Signal Processing and Communications Designed protocols for sensor networks and location-predictive 802.11, GNURadio and software defined radios, Designed digital filters for noise reduction, Created signal processing scripts in Matlab/Python, Designed networks simulation frameworks for research

Computer and OS: Experience with OpenWRT, Click Modular Router and QualComm/BroadCom wirless drivers, parsing domain-specific languages, locking and writing multi-threaded programs, designing and writing servers and APIs, Linux kernel compilation and customization, source control and unit testing

Leadership and General: Vice President of the MIT Xi Fellowship Alumni Board, Experience in formally leading teams of 3-10 people; Comfortable with public speaking and technical writing

Projects: endless.horse, Early Alert Earthquake Sensor Network Proposal, Predictive 802.11 Network for improved client mobility, Analysis of 802.11 wireless bit rate selection algorithms, Network Controlled Arduino Laser Cat Toy, 6.033 Provenance Tracking File System Paper, 6.005 Java Chat Client GUI and Server, Color Kinetics Light Installation, Linux Audio Workstation

References and additional experience available upon request.