Kyle Hogan

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EDUCATION

BOSTON UNIVERSITY
BS in Computer Science
Chemistry Minor
September 2016

TEACHING & MENTORING

MIT PRIMES
January 2016 - Present
Mentor two high school students on a project studying network bandwidth as a side channel in the cloud.
Assisted students in making several abstract submissions for posters and short talks.

CS558 NETWORK SECURITY
Fall 2015
Teaching Assistant for second half of the course.
Covered SQL injection, CSRF, XSS, cracking WEP, ARP spoofing, and web security topics such as HSTS, certificates, and secure cookies.
Taught discussion and lab sections on above topics, held regular office hours, and maintained a Piazza forum.

BU CODEBREAKERS
Summer 2016
Summer program introducing high school girls to programming and topics in computer security.
Gave a guest lecture on DNS and BGP with a focus on DNSSec and BGPSec.

AWARDS

Boston University
2016 Undergrad Research Award
Missouri S&T
2012 Contribution to Research

ACTIVITIES

- practical security seminar
- security reading group
- cryptography reading group
- binary exploitation workshop
- systems security reading group
- Charles River Crypto Day
- BUSec seminar series

RESEARCH

MACS PROJECT | Boston University
September 2015 – Present
Working to apply the Universal Composability framework to cloud computing components in order to construct a proof of security for cloud implementations. Current focuses are on identity and block storage functionalities.

MASSACHUSETTS OPEN CLOUD | Boston University
September 2015 – Present
Working as a core developer on a project building a hardware isolation layer and as a member of a secure cloud working group implementing a hardware root of trust for baremetal clouds.

SECURE RESILIENT SYSTEMS & TECHNOLOGY | MIT LL
June 2016 – September 2016
Worked as an intern applying MPC to cyber security problems. Implemented protocols in VIFF to allow parties to securely compute a joint IP blacklist or aggregate outputs of vulnerability scanners. Performed benchmarking and analyzed the performance of these implementations.

SESA LAB | Boston University
February 2015 – August 2015
Worked on modifying a fetal MRI reconstruction to run in the cloud. Focus on running application in a distributed manner to speed up runtime. Presented progress of project to university researchers regularly.

NMR GROUP | Missouri University of Science & Technology
May 2014 – July 2014
Ran samples on various nuclei for local Research and Development company, worked on a project involving the effect of pH on fluoride ion shifts, and helped with upkeep of NMR spectrometers.

NEUROMORPHICS LABORATORY | Boston University
May 2013 – August 2013
Worked in MATLAB on a project studying role of hippocampus and basal ganglia in motion decisions. Helped debug and add additional functionality to existing code. Discussed progress and summaries of relevant papers at weekly meetings.

MA LABORATORY | Missouri University of Science & Technology
March 2012 – June 2012
Responsible for culturing cells, dosing them with nanoparticles, selecting appropriate dyes for purchase, staining the cells and photographing them using fluorescence microscopy, and presenting at lab meetings. Trained a high school student in the above.

POSTERS & PRESENTATIONS

2016	NENS	Poster on PRIMES Project
2016	MACS Site Visit	Posters on Secure Cloud, UC NTP, UC Cloud, and PRIMES
2016	CANS	Short Paper & Talk on PRIMES Project
2016	IEEE SecDev	Presentation on research for Lincoln Laboratory
2015	MOC Workshop	Poster on research for MACS Project
2015	NENS	Poster on research for SESA Lab
2015	BU UROP	Poster on research for SESA Lab
2013	BU UROP	Poster on research for Neuromorphics Lab