Mia Gil Epner

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github.com/miagilepner

EXPERIENCE

Qadium, Inc.
Software Engineer

July 2017 - Present

Program and research Internet sensing technologies to allow customers to understand their networks, discover changes across the global Internet, and make informed decisions using our quantified network measurements.

University of California, Berkeley
Undergraduate Student Instructor of Computer Security

January 2017 - May 2017

Led discussion sections, held office hours, created and graded homeworks and exams for the Berkeley course Introduction to Computer Security.

University of California, Berkeley
Research Assistant

January 2016 - September 2016

Assisted UC Berkeley PhD candidate David Fifield with research relating to the development of Snowflake, a pluggable transport for the Tor Project.

National Security Agency
Software Engineering Intern

May 2014 - August 2016

Special Tactics and Techniques, Summer 2016: Developed a user–space, UNIX data collection tool in C to support strategic intelligence requirements.
Backbone Technologies Branch, Summer 2015: Developed a program in C and Python in an embedded Linux environment to perform an integrity check of modules loaded on external machines.
Geographic Technologies Center, Summer 2014: Coded a geocoder using a custom auto–complete text form to query databases in Javascript.
Mapped location records into an Elasticsearch database in Java, indexed the data, and provided server maintenance.

EDUCATION

University of California, Berkeley
B.A. in Computer Science
B.A. in Near Eastern Languages and Literatures

August 2013 - May 2017

SKILLS

Software development, embedded systems development, reverse engineering, test and documentation creation.

Top Secret/SCI Security Clearance.

LANGUAGES

Go, C, Python, Java, Ruby, Bro IDS, Javascript, CSS, Dojo libraries, JQuery

Fluent in Modern Standard Arabic. Conversational in Egyptian Colloquial Arabic.

PROJECTS

Malicious Tor Hidden Service Directories

https://github.com/miagilepner/Tor-HSDir-Research

Parsed and analyzed 1 year of Tor consensus documents using Python to discover malicious hidden service directories.

The Fingerprintability of WebRTC

https://github.com/miagilepner/DTLS-fingerprint

Created a DTLS fingerprint generator using Bro, a network analysis language, to survey WebRTC connections.

Medium Propagation Multiplexing

https://github.com/loriopatrick/EE122

Constructed an algorithm for a receiver to decode signals from multiple transmitters on the same frequency. Created a virtual environment in Java to deploy the algorithm.

PintOS

Project available upon request.

Implemented kernel threads, user programs, and a Unix file system in C for a lightweight OS.