

EDUCATION

2021–Present **Ph.D., Computer Science**, The University of California San Diego

Advised by Deian Stefan and Pat Pannuto, with a focus on the security of embedded and IoT devices and firmware. Part of SysNet and CryptoSec groups

2017–2021 B.S., Computer Science, The University of Texas at Austin

2017–2021 B.S., Mathematics, The University of Texas at Austin

PUBLICATIONS

- [2] Alex Bellon, Alex Yen, and Pat Pannuto. "TagAlong: A Free, Wide-Area Data-Muling Service Built on the AirTag Protocol". The 24th International Workshop on Mobile Computing Systems and Applications (ACM HotMobile 2023). February 2023.
- [1] Alex Bellon, Alex Yen, and Pat Pannuto. "Demo Abstract: A Free, Wide-Area Data-Muling Service Built on the AirTag Protocol". The 20th ACM Conference on Embedded Networked Sensor Systems (SenSys 2022). November 2022.
- [0] Alex Bellon, Alex Snoeren, and Deian Stefan. "Hacking for Fun and Glucose: Reverse Engineering an Insulin Pump". SRC TECHCON 2022. September 2022.

INDUSTRY EXPERIENCE

Summer 2020 Security Engineering Intern, Mozilla, Mountain View, CA (remote)

- O Researched security issues in language-based package managers like Cargo, NPM and PyPI
- Calculated attack possibilities for package maintainer account takeover, package code compromise, and vulnerability exploitation
- O Used research about past security incidents to fix security scoring algorithm on Mozilla's Dependency Observatory (*github.com/mozilla-services/dependency-observatory*) project, used to estimate the security of NPM packages

Summer 2019 Security Analyst Intern, Electronic Arts, Seattle, WA

- $\,\circ\,$ Used Python to automate checking for open ports and other attack vectors on EA's cloud instances.
- Scanned 800+ instances, found 1400+ security incidents sending summary of vulnerabilities to affected parties, with descriptions of the vulnerabilities and instructions to resolve them

TEACHING EXPERIENCE

Spring 2021 Undergraduate TA - CS349 Contemporary Issues in Computer Science,

The University of Texas at Austin

- O Graded assignments and held office hours for a class of 40+ students
- O Shared resources and information regarding ethical and social issues in computer science

Spring, Fall Undergraduate TA - CS361 Introduction to Computer Security,

2019 The University of Texas at Austin

- O Created and graded security-focused assignments for 80+ students
- O Lectured on various topics in security including cryptography and data forensics
- O Wrote, hosted and ran a CTF competition for the students' final exam

TECHNICAL SKILLS

Most comfortable in Python, C and Java; familiar with C++, assembly (M68K, x86), MySQL, JavaScript, HTML/CSS and Haskell.

Comfortable with Linux (Ubuntu, Arch/Manjaro) and UNIX, Shell (bash, zsh), git, vim, emacs (including org-mode), LATEX, Ghidra (scripting) and command line tools. Familiar with Wireshark, gdb, Kubernetes and Docker.