

ADAM VAN PROOYEN

adam.vanpr@gmail.com, (512) 966-8578

EDUCATION **CARNEGIE MELLON UNIVERSITY, COMPUTER SCIENCE** *Pittsburgh, PA, August 2016 – Present, N/A GPA*

- Plaid Parliament of Pwning (Member of the computer security Capture The Flag (CTF) team)
- Courses: Principles of Functional Programming, Great Theoretical Ideas in Computer Science, Introduction to Computer Security, Introduction to Computer Systems

UNITED STATES MILITARY ACADEMY, COMPUTER SCIENCE AND MATHEMATICS *West Point, NY, July 2014 – August 2016, 3.9 GPA*

- Dean's List ('15, '16), Distinguished Cadet Award ('15, '16)
- Cadet Competitive Cyber Team, ELEX (Electrical Experimenters), Communications Officer for ACM SIGSAC (Special Interest Group on Security, Audit, and Control)
- Courses: Design and Analysis of Algorithms, Data Structures, Cyber Defense Exercise, Database Design, Applied Algebra w/ Cryptography, Linear Algebra, Discrete Mathematics

PROFESSIONAL EXPERIENCE **SECURITY RESEARCH INTERN** *Defense Advanced Research Projects Agency (DARPA) – Kudu Dynamics, Las Vegas, NV, Summer 2016*

- Examined and reverse engineered 100's of gigabytes of vulnerable programs and machine patched binaries for DARPA's Cyber Grand Challenge held at DEFCON 24
- Developed novel exploitation techniques against the defenses deployed by the teams
- Created and briefed presentations to famous hackers, military officers, and government contractors on the capabilities and evolution of the cyber reasoning systems throughout the competition

SOFTWARE ENGINEERING INTERN

Lawrence Livermore National Laboratory, Livermore, CA, Summer 2015

- Designed a distributed database system for querying terabytes of meteorological data built on Spark
- Created a query language that was easily translatable into a series of order independent function calls

PROJECTS **M3DICAL - MAKING THE EMERGENCY ROOM PAINLESS** *Angelhack @ Silicon Valley, July 2015*

- Team developed healthcare kiosk to scan and automatically print hand cast
- Wrote a Python script to decode STL files and perform 3D transformations before reencoding
- Implemented node.js server to communicate with kiosks and to process 3D models for patients

CHICKUBATOR - A CONNECTED CHICKEN INCUBATOR

BeMyApp Hackathon, March 2014

- Organized overall project structure and map of system interaction
- Prototyped hardware and microcontroller software on a short timescale
- Designed and implemented REST API for microcontroller to communicate with iOS app

AWARDS **1ST PLACE TEAM - SPONSOR PRIZE, AUTODESK, INC.**

Angelhack @ Silicon Valley, July 2015

- Awarded for best use of 3D in a project for potential launch
- Created a medical ecosystem for scanning hands and custom fitting casts for automatic 3D printing

2ND PLACE TEAM - SPONSOR PRIZE, HEWLETT PACKARD, INC.

Angelhack @ Silicon Valley, July 2015

- Received for best use of HP Haven OnDemand API (used by major companies to analyze their data)
- Used API to analyze input text about health problem, extract key features, and map them to possible health conditions

"BEST IOT DEVICE", ELECTRIC IMP, INC.

BeMyApp Hackathon, March 2014

- Received for creation of an internet connected, IOT chicken incubator prototype
- Wrote backend server code in node.js and squirrel and wrote iOS app to control core functionality

1ST PLACE - SPONSOR PRIZE, MICROSOFT CORPORATION

HSHacks, March 2014

- Awarded for an interstellar gravity based physics game in a competition against 500 other hackers
- Written using XNA framework in C# for Windows Phone 8 and Windows 7/8

LANGUAGES **PROFICIENT:** Python, x86 Assembly, IDA Pro, gdb, Scala, C, Objective-C, Swift, Spark **PRIOR EXPERIENCE:** node.js, Javascript, HTML5, CSS, Java, C#, C++