Jimmy Li

University of California, Berkeley, Class of 2024
jimmyli2002@gmail.com | (909)-336-8620 | https://jimmyli.us

Education

University of California, Berkeley - Berkeley, CA **(August 2020 - Present)**
Intended Major: Computer Science, Expected graduation: 2024, GPA: 4.00
Relevant Coursework: CS 61A: Structure & Interpretation of Computer Programs, EECS 16A: Designing Information Devices and Systems

Troy High School - Fullerton, CA **(August 2016 - May 2020)**
Class of 2020, Weighted GPA: 4.76/5.00

Projects

Collegiate Cyber Defense Competition Scoring System (2019-2020)
- Designed and implemented a scoring system in Python to proctor simulated collegiate cyber defense competitions. Service status polled and relayed to a web application built with the TypeScript-MERN stack to help competitors understand their performance in real-time.

CyberPatriot Scoring System (2019-2020)
- Designed and implemented a configurable Python program to query the Windows API and verify correct security policies were configured. Scores were relayed to a web application built with the MERN stack for tabluation and easy access.

Machine Learning Adventures (2019-2020)
- Collection of machine learning models to solve interesting problems
- KDDCup1999 - Implemented various deep learning models to categorize cyberattacks. Later improved models using statistical feature selection, integrating new network layers, and hyperparameter tuning.
- WISDM - Implemented a LSTM recurrent neural network architecture with a sliding window using PyTorch to categorize human activity time series data.

Experience

Research Internship at California State University, Fullerton (Summer 2018, 2019)
- Researched computational methods of detecting cyber intrusion using machine learning and statistics. Techniques included logistic regression, feature pruning using decision trees, and deep neural networks.
- Researched 3D biological structure and created an algorithm to locate important protein motifs. The algorithm used 3D spatial relations to create a template and identify motifs in unexplored proteins.

Independent Security Research (2020)
- Utilized experiences from security competitions to find vulnerabilities in real-world applications.
- Reported vulnerabilities to Google and accepted to Google VRP Hall of Fame.

Activities

UC Berkeley Launchpad (September 2020 - Present)
- Worked with a subteam to design and deploy machine learning models which solve real world problems.
- Webmaster - Improved site loading times and developed role management system using Django.
- Interact - Investigated methods to classify human object interaction using various deep neural networks.

Capture the Flag Security Competitions (September 2018 - Present)
- Presented to peers about web exploitation and how to defend against it.
- Organized and wrote security challenges for RedpwnCTF and DiceCTF reaching over 5,000 people.

Troy Cyber Defense - Co-President (August 2016 - May 2020)
- Planned and presented weekly lectures about how to secure linux and windows operating systems.
- Competed annually in the CyberPatriot competition. National champion in 2019, runner up in 2018, and third place in 2020 in the national finals competition.

Awards

M3 Math Modeling Competition Technical Computing Award Runner Up (2020)
- Implemented a greedy MCLP algorithm to optimally place vehicle charging stations.

United States of America Computing Olympiad Gold Division (2019)