

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)

B.A. Computer Science, Expected graduation: 2024, GPA: 4.00

Relevant Coursework: Structure & Interpretation of Computer Programs, Data Structures, Discrete Mathematics and Probability Theory, Designing Information Devices and Systems

Technical Skills

Python, Java, C, C++, Unix, Git, Docker, JavaScript, Node.JS, MySQL, MongoDB, Redis, PHP, HTML, CSS

Experience

Hatch - Software Engineering Intern (Summer 2021)

- Improved login flow by integrating Google OAuth as a sign-on provider reducing sign-on to just 1 click.
- Added authentication layer by integrating user authentication with AWS IAM to secure backend access.
- Worked across the full stack with technologies like AWS Amplify, Lambda, Cognito, RDS, and GraphQL to write highly scalable and responsive features.

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.

Projects

GuessrApp (2021)

- Designed a horizontally scalable, real-time song guessing game by working across the full stack.
- Developed the frontend using ReactJS and used Node.JS, PostgreSQL, Redis, and WebSockets for the real-time and distributed backend. Backend also integrates with Spotify API for song data.
- Deployed full application to Kubernetes on GKE with docker images stored in Google Artifact Registry.

Collegiate Cyber Defense Competition Scoring System (2019-2020)

- Developed a Python program to query the Windows API and verify security policies were configured.
- Designed infrastructure to poll service status and update a web application built with the TypeScript-MERN stack to help competitors understand their performance in real-time.

Machine Learning Adventures (2019-2020)

- KDDCup - Implemented various deep learning models to categorize cyberattacks using feature selection.
- WISDM - Implemented a LSTM recurrent neural network architecture with a sliding window using PyTorch to categorize human activity time series data.

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)

- Compete as an application security specialist and find security vulnerabilities in challenging applications.
- Finalist in GoogleCTF and DefconCTF and reported real world vulnerabilities to Google VRP.
- Organized and wrote security challenges for RedpwnCTF and DiceCTF reaching over 5,000 participants.

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)