

JASON YANG

408-858-9186 ◊ jasonyang@berkeley.edu ◊ <https://linkedin.com/in/yangjason57/> ◊ <https://github.com/yangjason57>

EDUCATION

University of California, Berkeley

Expected May 2022

- Bachelor of Arts in Computer Science, GPA: 3.5
- Relevant Coursework: Efficient Algorithms and Intractable Problems, Data Structures, Introduction to Database Systems, Great Ideas in Computer Architecture, Introduction to Artificial Intelligence, Structure and Interpretation of Computer Programs, Discrete Math and Probability Theory

SKILLS

Languages: Python, Java, C, C++, HTML, CSS, JavaScript, SQL, RISC-V Assembly

Tools: Git, MySQL, PostgreSQL, SQLite, Flask, OpenMP, Intel SSE, OpenCV

EXPERIENCE

Research Assistant

February 2020 - Present

Roland Henry Laboratory at the University of California, San Francisco

San Francisco, CA

- Built a web streaming visualization of patients' step counts over time with Python, Plotly, and Flask after parsing CSV files with Pandas and storing the data in a MySQL database
- Constructed an authenticated RESTful web service of patients' biometrics using Python, OAuth, Flask, and SQLite to reduce machine learning data preprocessing time
- Developed application to let patients see their own biometric data, health statistics, and health insights in real time by leveraging Fitbit's Web API, Python, SQLite, and NumPy

Software Engineering Intern

June 2019 - August 2019

Tala Security

Fremont, CA

- Categorized over half of the violations for a stricter Content Security Policy by building a security profile using URLs accessed and triggered for each Chrome Web Store extension with Node.js and PostgreSQL
- Crawled through all of the source code for each Chrome Web Store extension and searched source code for malicious keywords and URLs to create a fingerprint for each extension
- Displayed interactive graphs and summarized key details of classified violations and most frequently used extensions, URLs accessed, and URLs triggered using Plotly and Node.js.

Software Engineering Intern

June 2018 - August 2018

Tala Security

Fremont, CA

- Created security profile of third-party web objects by analyzing source code and aggregating vulnerabilities from the NVD's CVE API; published invention in US Patent 20200137126A1
- Scraped all web objects from Alexa's 1M most visited websites and Cloudflare's CDN and searched through source code for data loss prevention keywords to generate a reputation score for each object
- Built a visualization of most frequently used and most vulnerable third-party web objects using Plotly, Node.js, and PostgreSQL to display interactive graphs and summarize key details

PROJECTS

Virtual Soccer Referee

August 2019 - December 2019

Created a mobile application with Python and OpenCV that makes on-field soccer decisions as a virtual referee in real time from the use of a mobile phone's camera through computer vision.

Space Invaders

June 2019 - August 2019

Implemented co-op and head-to-head multiplayer using Java's ServerSocket framework after redesigning the arcade classic Space Invaders with Java Swing.

LEADERSHIP AND EXTRA-CURRICULAR ACTIVITIES

UAVs at Berkeley

August 2019 - Present

Wrote back-end code to identify spontaneously placed objects in images with k-means clustering using OpenCV, Scikit-Learn and TensorFlow as part of the Object Detection, Location, and Classification team.

Friends of Children with Special Needs

August 2014 - Present

Founder and President of the Computer Division of FCSN. Coached and led club members to teach Scratch, Java, HTML, CSS, and JavaScript classes to special needs students.