WAI HEI (RAY) NGAN

Software Engineer Intern

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EXPERIENCE

Undergraduate CS Research Assistant
UC Davis (Industry collaborators: Apple, Mozilla)

📅 Aug 2020 – Present   ⚲ Davis, CA

- Study the impact of obfuscations on existing browser fingerprinting detection as a measure of web security.
- Analyze top one million sites as data sets using web privacy measurement framework.
- Automate web crawling obfuscation techniques using selenium browser automation.
- Implement solutions and processes to access MySQL.
- Develop obfuscation-resistant fingerprinting detection approaches using machine learning techniques.
- Leveraged knowledge in Git, Python, Javascript, Selenium, SQLite, mitmproxy, and constructed software design patterns for research analysis pipeline.

Software Developer
Bit Project

📅 Oct 2019 – Feb 2020   ⚲ Davis, CA

- Designed and wrote 20 programming workshops using MongoDB, Node.js, HTML, CSS, APIs, and graphs algorithms.
- Integrated advancing STEM activities into underserved K-12 classrooms.
- Supervised curriculum-making, workshops, and labs for the development team.
- Hosted seminars and presentations for MongoDB at UC Davis.
- Leveraged knowledge in programming fundamentals, Full Stack Web Development, teamwork, public speaking, and leadership.

TECHNICAL SKILLS

Fluent

C++   Python   HTML/CSS   JavaScript   React
Node.js   Git   Linux   Cloud Computing   SQL

Proficient

C   Java   MySQL   Swift   Assembly   R
REST   AJAX   API

LANGUAGES

English
Cantonese (Chinese)
Mandarin (Chinese)

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EDUCATION

Bachelor of Science in Computer Science (GPA: 3.45)
University of California, Davis

📅 Sep 2018 – Jun 2022 (Projected)

- Programming Coursework: Data Structures, Algorithm Design & Analysis, Machine Learning, Artificial Intelligence, Web Programming, iOS fundamentals

HS Diploma
William A. Shine Great Neck South High School

📅 Sep 2014 – Jun 2018   ⚲ Great Neck, NY

PROJECTS

PopMatch (GitHub, Website)
- Developed an iOS application using Swift and Objective-C that allows users to have one-on-one video meetings with people of similar interests.
- Integrated video chatting component using Twilio Video API.
- Developed user matching accept and reject flow logic through Firebase Realtime Database.
- Added icebreaker questions and social media exchange methods to improve the video chatting experience.
- Utilized: Swift, Objective-C, Firebase, Cloud Storage, Twilio API, Git

AI Learning to Play Pong by Atari (GitHub, Website)
- Created an AI to play Atari Pong using deep learning and reinforcement learning techniques.
- Used Google Cloud Platform Deep Learning VM and TensorFlow's Keras API to train the Deep Q Learning model.
- Utilized: Python, TensorFlow, Keras, NumPy, OpenAI, Google Cloud Platform

Safe Space (Github, Website)
- Developed a web application that rates COVID safety ratings of different stores and restaurants for the StudentsBuild4COVID19 Hackathon.
- Leveraged my knowledge of software development life cycle: planning, analysis, design, implementation, testing, and integration.
- Awarded second place based on innovation, practicality, impact, functionality.
- Utilized: HTML/CSS, Javascript, Python, Flask, AJAX, Pandas, Git