Ray Ngan

Software Engineer

CONTACT

347-265-0293

rayngan999@gmail.com

Davis, California, US

ngan.gtsb.io

github.com/rayngan999

EDUCATION

Bachelor of Science Computer Science (GPA: 3.86)

University of California, Davis
Davis, CA | Sep 2018 - Jun 2022

- Relative Coursework: Data Structures, Algorithm Design, Object-Oriented Programming, Machine Learning, Artificial Intelligence, Web Programming, iOS Fundamentals, Technology Management, Information Technology Management

SKILLS

C++. Python, Java, HTML5, CSS3, JavaScript, React, Git, Linux, SQL, MySQL, C, API, Node.js, AJAX, REST, Swift, Assembly, R, MATLAB, NumPy, Pandas, MongoDB

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EXPERIENCE

UNDERGRADUATE CS RESEARCHER
UC DAVIS | DAVIS, CA | AUG 2020 - PRESENT

Study the impact of obfuscations on existing browser fingerprinting detection techniques as a measure of web security supervised by Professor Zubair Shafiq.

- Analyzed **top 1 million sites** using **web privacy measurement framework** and various **obfuscation** techniques.
- Investigated and developed **obfuscation-resistant fingerprinting detection** approaches using **machine learning** techniques.
- Analyzed tracking scripts and network requests from **5000+ domains**.
- Engineered **research pipeline** that automates JavaScript collection, obfuscation process, and fingerprinting scripts detection.
- Presented research findings at **Ad Blocker Developer Summit 2021**.
- Leveraged knowledge in **Git, Python, Firefox Dev Tools, Selenium, SQLite, JavaScript, mitmproxy**.

SOFTWARE DEVELOPER
BIT PROJECT | DAVIS,CA | OCT 2019 - FEB 2020

- Designed **20+ programming workshops** for STEM-teaching courses.
- Created web applications using **MongoDB, Express, NodeJS, and React**.
- Leveraged knowledge in **full-stack development, teamwork, public speaking, leadership**.

PROJECT

POPMATCH (GitHub, Website)

An iOS application that allows users to have one-on-one video meetings with people of similar interests.

- Integrated **real-time video chatting** component using **Twilio Video API.**
- Developed **user matching algorithms** with **Firebase Realtime Database.**
- Utilized **UIKit, Swift, Objective-C, Firebase, Cloud Storage, Twilio API, Git.**

AI Learning to Play Pong by Atari (GitHub, Website)

An Atari Pong AI optimized with deep learning and reinforcement learning.

- Trained **Deep Q Learning model** using **Deep Learning VM Image** and **TensorFlow** framework on **Google Cloud Platform.**
- Improved AI Agent by **93% after 2 million training frames.**
- Utilized **Python, TensorFlow, Keras, NumPy, OpenAI, Google Cloud Platform.**

Safe Space (GitHub, Website)

A web application that rates COVIS-19 safety of different stores and restaurants.

- Implemented front-end development along with **Google Maps SDK.**
- Awarded **second place out of 100+ teams** for StudnetsBuild4COVID19.
- Utilized **HTML, CSS, JavaScript, Python, Flask, AJAX, Pandas, Git.**