RYAN NGUYEN

San Francisco Bay Area | (408) 300-3042 | ryannguyenc@gmail.com |linkedin.com/in/ryannguyenc|github.com/ehcaw

EDUCATION

San Jose State University - Bachelor of Science, Computer Science - GPA: 3.7 / 4.0   Aug 2022 - Dec 2025

Relevant Coursework   Data Structures and Algorithms, Object-Oriented Design, Computer Architecture, Linear Algebra, Information Security, Programming Paradigms

PROJECTS

EliteCode

Interactive Interview Prep | Typescript, React, TailwindCSS, NextJS

- Used OpenAI's whisper model and GPT 3.5 Turbo to transcribe and process user responses less than **3** seconds
- Culiminated a data structures and algorithms curriculum with over **10** topics
- Created a functioning full stack web app with an attractive and intuitive UI at SFHacks 2024

ColorMe

Browser Customization Firefox Extension | Typescript, React, CSS

- Implemented a color wheel to change Firefox's theme using the Firefox browser API
- Implemented local storage to maintain the chosen theme across various browser sessions
- Developed a simple UI that enables users to set and save their themes, customizing their Internet browsing experience

CruzMaps

Interactive Map of UC Santa Cruz | Typescript, React, TailwindCSS, NextJS, MongoDB

- Worked within team of 4 to develop full stack web app and deployed with **Vercel** during CruzHacks 2024
- Leveraged multiple APIS to culminate a custom fully interactive map of UCSC for students and faculty to use
- Created and maintained a **MongoDB** database to store points of interest for user convenience

JTunes

Play Music Locally | Java, JavaFX, Maven

- Led team of 4 to create a local music player application using **Java** and **Maven**
- Used object-oriented design patterns to implement full-fledged media player and GUI similar to Spotify's
- Communicated and managed workloads for all team members in order to complete our project

Gesture Recognition

Simple Flask App that helps transcribe sign language | Python, PyTorch, OpenCV, Flask

- Created a multilayer convolutional neural network that was trained on an open source sign language dataset to recognize various signs using **Pytorch** and **OpenCV**
- Trained it over twenty epochs using the dataset and utilized **OpenCV** to capture camera inputs for the model to process
- Created a flask app that displayed camera input and the predicted letter that the user was signing

EXPERIENCE

PetaNano SWE Intern   **June 2023 - August 2023**

Robot Arm Control Software - petanano.com | Python, PyTorch, Dynamixel

- Developed software to control a robot arm using a new patented method
- Wrote an algorithm using the **PyTorch** library that utilized an enhanced gradient descent in order to calculate configurations for the arm and yielded on average **50%** amount of iterations as standard gradient descent
- Added capability for the arm to draw shapes
- Assembled a three link robot arm using Dynamixel components that utilized this software to operate in real time

SKILLS AND INTERESTS

- Programming: Java, Python, Javascript, Typescript, HTML, CSS, ReactJS, MongoDB, NextJS, Pytorch, OpenCV
- Interests: Hiking, Photography, Cooking, Basketball
- Languages: Fluent in English, Vietnamese