Richard Aguilar

http://www.raguilar.tech

San Francisco State University

Bachelors in Computer Science

Riverside City College

Associates in Computer Science for Transfer

EXPERIENCE

Microsoft Summer Challenge

Web Developer

- Web Development: Description: Developed a web app using React.js, HTML, and CSS to find potential users within a 5-mile radius based on their location using Google Maps API. Added newsletter and daily digest sections using newsapi.org API. Showcased proficiency in front-end development and API integration
- **Project Management**: Collaborated with group members to develop a minimum viable product and create a business and technical report outlining potential technologies and challenges that may arise during development.

NASA Spacesuit User Interface Technologies for Students

- Team Lead
 - Augmented Reality Development using HoloLens: Developed an augmented reality heads-up display using MixedReality repository that presented real-time telemetry without impairing the user, utilizing screen space efficiently.
 - **Telemetry and Data Streaming**: Hololens handled real-time telemetry during practice runs, utilizing an API to provide each team member with practice data simulating what a real space suit would give.
 - Leap Motion Hand Tracking: Used Leap-motion hand-tracking camera and software to find the velocity and angle of the hand for a program developed with the goal of improving on HoloLens' limited hand tracking software.

Projects

File System Project

Clone of Linux File System

• **Operating Systems**: As part of an Operating Systems group project, I helped develop a clone of the Linux file system using C. Our file system included a Volume Control Block, a free space management system, and a Directory Entry Structure. To efficiently manage space, we used a bitmap to track free space, using bitwise operations to flip bit signs based on whether space was free or not. Through this project, I gained experience in low-level programming with C and demonstrated my competency in managing data storage and thinking creatively.

Jungle E-commerce Platform GCE, Linux, MySQL, Apache, Node.js, React.js, Express.js, Handlebars *Full Stack development Project*

• Web Development: demonstrated competency in back-end web development by using a combination of technologies to create a scalable and efficient server-side architecture. Specifically, I used JavaScript and Apache to build the web server and handle requests from clients, and I used MySQL to store and manage data related to the products, orders, and customers. Additionally, I used Google Compute Engine to host the server, which allowed for high performance and scalability.

CLUBS

Association for Computing Machinery and ICPC

- Founder and Club Leader
 - **Club**: Founded and led ACM club, providing unique education and coordinating an International Collegiate Programming Contest for Riverside City College with participation from multiple universities.

PROGRAMMING SKILLS

• Languages: Kotlin, Rust, Qiskit, Cuda, HTML, CSS, JavaScript, C, C#, C++, Java, Python, Go, Typescript Technologies: React.js, Unity, mySQL, Node.js, GitHub/GitKraken, FileZilla, Trello, .NET

San Francisco, CA Aug. 2021 – May. 2023

Riverside, CA Aug. 2018 – July. 2021

Remote 2021

Aug 2018 - Oct 2020

C, Linux/Ubuntu

Aug 2018 - July 2021