Randy Quilala

Website
rsquilala.github.io/me

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San Francisco, CA

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Education

University of California, Irvine — September 2019 - expected June 2023
B.S. in Computer Science — 3.91 GPA (Dean's Honor List)

Technical Skills

Programming: Python, C/C++, HTML+CSS+JavaScript, x86 Assembly, Shell Scripting

Concepts:
Data structures, graph theory & algorithms
Front-end development, accessibility in web applications
SQL data management, information retrieval
Machine learning, neural networks
Operating systems, low-level management, multithreading

Projects

Gesture-based Surrogate Mouse Cursor — December 2022
- Designed a web page component with accessibility in mind, detecting the user's hand gestures through their webcam and translating their gestures into web page navigation, such as moving the surrogate mouse cursor and clicking & interacting on web elements.
- Can be added as a component to many websites as an overlay.
- Written in JavaScript and uses Handtrack.js machine learning model to detect gestures.

Sleep Tracker Hybrid Mobile Application — November 2022
- Built and deployed a mobile app using Ionic and Angular.
- Logs overnight sleep using a sleep timer, where the user begins the timer before they sleep and ends it when they wake up.
- Application detects the orientation of the device, starting the sleep timer when the device is face-down and ending the sleep timer when it is no longer face-down.

Spotify Web Browser — November 2022
- Handled server-side and client-side JavaScript in order to manage Spotify API calls and to display to the user relevant information.
- Client-side portion built using Angular & Bootstrap, allowing the user to perform search for artists, albums, and tracks, displaying its results in their respective pages.

Static Web Crawler — January 2022
- Programmed a Python web-crawler to traverse and accumulate information on a corpus of over 30,000 static web pages.
- Utilized heuristics based on URL and traversal history in order to avoid crawler traps.

Involvement

President & Social Coordinator for Hiking Club at UCI — 2022-2023 Academic Year
- Managed and organized over 250 active members for weekly hikes.
- Using Python scripts and Excel spreadsheets, created the automation for weekly hike selection, selecting members based on number of available spots and the amount of hikes the members attended.
- Managed the social media space and coordinated social events for the club.