Aaron Ahmadyar

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EDUCATION

California Polytechnic State University, San Luis Obispo   San Luis Obispo, CA
Bachelor of Science in Computer Engineering   *Sep. 2020 - June 2024*
- GPA: 3.84/4.0

EXPERIENCE

Software Developer   Oct. 2023 - June 2024
Hack4Impact Cal Poly   *San Luis Obispo, CA*
- Developed a calendar portal for Ecologistics, a non-profit organization, using TypeScript, Next.js, and MongoDB, to centralize event postings, facilitating better communication and coordination among various organizations.
- Utilized Clerk authentication to implement secure authentication and role management, enabling differentiated access levels for admin, approved, and pending users.
- Integrated Resend for sending automated email notifications, improving user engagement and communication efficiency.

Instructional Student Assistant   Sep. 2023 - Dec. 2023
Cal Poly Computer Science and Software Engineering Department   *San Luis Obispo, CA*
- Graded assignments in the Object-Oriented Programming and Design course.
- Assisted students during lab sessions, offering guidance and clarification on programming tasks.
- Held office hours to provide additional support and assistance to students outside of class time.

PROJECTS

Tutoring Web Application | *Django REST Framework, PostgreSQL, ReactJS, AWS*
- Developed a tutoring web app using Django REST Framework, PostgreSQL, and ReactJS, hosted on S3 and EC2 with RDS, employing CI/CD pipelines for streamlined deployment.
- Employed the Simple JWT library for seamless JWT authentication, incorporating both refresh and access tokens to ensure secure and efficient user access management.
- Designed feature-rich platform with trial periods, messaging, and goal-setting for enhanced learning interaction.

CookMyFridge | *Node.js, Express.js, React, MongoDB*
- Developed a web application using Node.js, Express.js, React, and MongoDB to provide users with recipe suggestions from a third-party API based on input ingredients.
- Implemented JWT based user authentication and authorization for secure website access.
- Enabled users to share feedback by rating and commenting on recipes.

Retina | *Python, KRIA KV260, YOLOv5*
- Developed a system for Space Motiv Systems, Inc., utilizing the KRIA KV260 and Yolov5 to identify MARS sample tubes.
- Implemented algorithms to calculate the relative x, y, z distance, and angle of orientation of identified tubes.
- Transmitted information to a robotic arm for automatic retrieval based on calculated parameters.

STM32 Function Generator | *C, STM32*
- Developed a function generator leveraging STM32 microcontroller and an external DAC, enabling generation of sine, sawtooth, and square waves with adjustable parameters such as frequency and duty cycle.
- Utilized the external keypad as a control interface to manipulate waveform outputs.
- Established communication between the STM32 microcontroller and the external DAC via SPI protocol.

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, Typescript, SQL
Technologies: Node.js, Express.js, React, Next.js, Django REST Framework, MongoDB
Other Skills: Git/GitHub, Agile/Scrum