

Sean Abi Saab

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EDUCATION

Cal Poly Pomona

Bachelor of Science in Computer Engineering, Minor in Computer Science

Pomona, CA

Aug. 2020 – Dec 2024

EXPERIENCE

Walmart Global Tech

Software Engineering Intern II | Java, Spring Boot, JUnit 5, Postman, DBeaver

Sunnyvale, CA

May 2023 – Aug 2024

- Implemented and tested an upgrade that enables all CCM2 APIs to leverage the v2 pathway for Configuration Definitions. This streamlined the process, improving scalability and eliminating API version ambiguity.
- Upgraded CCM2 APIs to implement patch versions, enhancing resilience by moving away from time-based methods that were vulnerable to network spikes.
- Employed CCM2 APIs to write two methods that would retrieve changes made within a configuration and propagate them to the consumer application in real-time.
- Learned JUnit 5 and Postman in order to write tests and ensure that all API calls were operating properly.
- Explored ways to enhance CCM2 client reliability and flexibility when undergoing abnormally high network traffic.

PROJECTS

Robotic Arm | Arduino, C++

- Utilized proximity sensors to write an algorithm that would detect objects along the arms path of rotation.
- Solved a major stabilization issue by proposing and implementing the design of a larger base with wheels that act as rotating support beams.
- Designed and constructed multiple pulley systems that operate as functional elbow and wrist joints in the arm.
- Collaborated with 4 colleagues to design, build, and code the robotic arm.

Traffic Control System | PICkit 4, LCD Display, C

- Programmed an LCD Display with animations to simulate an intersection with red, yellow, and green lights.
- Incorporated push buttons for pedestrian crosswalks alongside timers featuring a persistent buzzer that beeps until the timer reaches zero.
- Wrote an algorithm to determine whether it is day or night based on the voltage reading of a light sensor.
- Used a light sensor to create multiple settings for pedestrian crosswalks in day/night mode.

Personal Portfolio Website | Javascript, HTML, CSS, Git

- Launched a personal website to display past, present, and future projects throughout my professional career.
- Animated buttons and a sliding options menu using Javascript and CSS.
- Contains an arcade of classic Javascript games embedded within the website.

Project Management | Autodesk Inventor

- Spearheaded a team of 3 to design a self sustaining mechanism that would help cleanse the ocean of all sizes of plastic and other trash.
- Created multiple unique 3d model designs using Autodesk Inventor.
- Proposed designs and secured funding for a complex year-long capstone project.

TECHNICAL SKILLS

Languages: Java, C, C++, C#, JavaScript, HTML/CSS, PIC18F Assembly, Matlab

Frameworks: Spring Boot, JUnit 5, .NET Core

Developer Tools: Git, Postman, DBeaver, VS Code, Visual Studio, IntelliJ IDEA, MPLAB X IDE, Arduino, PICkit 4, Pspice, LTSpice, Autodesk Inventor

Coursework: Software Engineering, Operating Systems, Data Structures and Algorithms, Object Oriented Programming, Microcontrollers, Electrical Circuit Analysis, Digital Logic Design, Signals and Systems, Microelectronic Circuits, Discrete Structures, C for Engineers