Abhi Alderman

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EDUCATION

University of California, Berkeley

May 2024

Degree: Bachelor of Science in Electrical Engineering and Computer Sciences

Courses: Data Structures, Computer Architecture, Computer Security, Artificial Intelligence, Robotics, Database Systems, Operating Systems, Computer Graphics & Imaging, Efficient Algorithms & Intractable Problems, Printed Circuit Boards

EXPERIENCE

Salesforce

September 2024 - Current

San Francisco, CA

Software Engineering AMTS

- Developing the foundational architecture for Salesforce's new Life Sciences platform.
- Migrating and implementing essential platform components, including custom objects and data types, to meet pharmaceutical industry standards using Java, Apex, and LWC.
- Improving system reliability and performance by enhancing test coverage to 80%, adding instrumentation, and increasing platform scalability.
- Building and enhancing front-end features using LWC, JavaScript, HTML, and Aura.

Salesforce

May 2023 - August 2023

Software Engineering Intern

San Francisco, CA

- Developed and implemented a Smart Chat Bot within the Financial Service Cloud team using Salesforce's Einstein Bot Builder.
- Incorporated Natural Language Processing (NLP) to enable the chatbot to effectively comprehend user inputs.
- Designed and implemented 9+ different intents, each with 150+ varied utterances, to build and allow the NLP model to effectively respond to a wide range of user requests.
- Chat bot is capable of creating accounts and other records, listing high priority financial goals, creating interactions and interaction summaries, and more.

Benchmark Electronics

May 2021 - August 2021

Automation Engineering Intern

Concord, CA

- Programmed and operated a KUKA-KR22 robot arm. Created programs that allowed the robot to autonomously switch tools, pick up brushes, deburr product surfaces and holes, and pick up and rack products.
- Created an autonomous program that reduced cycle time by 5 times on a product previously done by hand.
- Designed and assembled fixtures, adapters, and racks to hold and attach tools.

Berkeley Student Cooperative - Cloyne Court

September 2021 - December 2023

Network Manager

Berkeley, CA

• Managed and oversaw the entire network infrastructure for a student co-op house accommodating 150+ residents.

UC Berkeley EECS Department

August 2021 - May 2023

Academic Student Employee

Berkeley, CA

• Educated 200+ students on proper lab equipment use, building circuitry, and programming in Python with NumPy.

PROJECTS

Robot Arm Block Stacker | ROS, Python, Computer Vision

Portfolio | Github

Programmed a 6-axis robotic arm to autonomously detect and stack blocks using ROS and computer vision

Animatronic Eyes | C, C++, Arduino, ESP32, KiCAD, TinkerCAD, Git

Portfolio | Github

Designed and programmed a pair of 3D printed eyes powered by a custom PCB that was able to detect and follow faces using an ESP32 microcontroller equipped with a camera and live webserver. Visuals and demo available on portfolio.

Discord Music Bot | Python, Amazon Web Services (AWS), Linux, Discord API, Discord, Git

Portfolio | Github

Implemented and deployed a Discord Bot capable of searching YouTube and SoundCloud to play requested music into the user's voice channel. The bot is hosted and available 24/7 through the use of Amazon Web Services (AWS).

Front-Door Automation | C++, Arduino, Raspberry Pi, Linux, Git

Portfolio | Github

Automated the front door of my Co-op using a card scanner and Arduino that securely allows only UC Berkeley co-op residents to open the door using their Student ID Card.

Ribbon-Cutting Robot | *C++, VEX, AutoCAD*

Portfolio

Designed, Manufactured, and Programmed a small 4-wheeled robot to cut the ribbon for the Bay Area Science Festival in 2019. The robot featured a scissor lift equipped with a spinning saw blade at the end to cut through the ribbon.

TECHNICAL SKILLS

Languages: Java, Python, Apex, GO, Javascript, CSS, HTML, ROS, C, C++, C#, RUST, Scheme, SQL, RISC-V, KUKA

Developer Tools: Git, LWC, VSCode, ROS, IntelliJ, Netlify, LaTeX, KiCad, TinkerCad

Technologies & Frameworks: Salesforce, Amazon Web Services, React.js, NumPy, JUnit, Node.js, OpenMP, Jupyter