

EDUCATION

University of California, Berkeley

Electrical Engineering and Computer Science, B.S

Berkeley, CA

2022 - 2025

Courses: Data Structures, Designing Information Devices and Systems, Machine Structures, Discrete Mathematics, Multivariable Calculus, Physics for Scientists and Engineers

[GPA: 3.7]

QUALIFICATIONS

Skills: Computer Architecture, Robotics, Web Development, Machine Learning, Linear Algebra, Circuit Analysis

Languages: Java, Python, C, C++, JavaScript, MATLAB, R, SQL, RISC-V, VBA, HTML/CSS

Tools: Git, Vim, SQL, Jupyter, Valgrind, TensorFlow, Node.js, Arduino, NumPy, Arduino, React, Unix/Linux

PROJECTS

CS61Classify

February 2024

- Developed RISC-V assembly code to implement handwritten digit classification using machine learning
- Designed and implemented a simple Artificial Neural Network (ANN) as part of the classification process, enhancing the accuracy and effectiveness of the digit recognition system.

Build Your Own World

November 2023

- Designed a sophisticated 2D interactive tile-based exploration game engine utilizing Java StdDraw and TileSet
- Implemented procedural generation techniques with seed-based algorithms to create diverse and randomly generated worlds with strategically placed keys and locks
- Created a robust Save/Load feature for an immersive user experience

SIXT33N

September - December 2023

- Engineered a voice-controlled car leveraging Arduino (C++) technology, complemented by Signal Processing techniques
- Implemented Singular Value Decomposition (SVD) and Principal Component Analysis (PCA) algorithms to enhance the car's functionality and responsiveness to voice commands
- Utilized SVD for dimensionality reduction and noise reduction in collected data, while PCA facilitated feature extraction and efficient representation of the input space.
- Integrated these algorithms into the circuit design to enable data processing, resulting in precise control mechanisms and enhanced performance of the voice-controlled car.

Excel VBA automation

July 2023

- Engineered and deployed a macro system engineered to efficiently manage extensive volumes of customer data sourced from the insurance gateway
- Implemented real-time conversion of this data into a standardized format compatible with the Customer Relationship Management system, enabling widespread dissemination to all employees.
- Streamlined data processing, resulting in a significant reduction in manual effort and error rates while handling large datasets.

EXTRACURRICULAR ACTIVITIES

FullStack Development | *Web Development at Berkeley*

January 2024 - Present

- Explored principles of front-end and back-end development, gaining proficiency in full-stack web development and design
- Developed expertise in JavaScript, HTML, CSS, and Node.js, mastering the creation of dynamic and interactive web applications
- Collaborated effectively in cross-functional teams, contributing to the development of large-scale software projects from inception to implementation

Debate Society of Berkeley | *Team Member*

January 2023 - Present

- Engage in regular debate practices, honing abilities in argumentation, persuasion, and communication.
- Represented Berkeley at USUDC 2023, showcasing adept critical thinking and persuasive public speaking abilities on an intercollegiate level
- Contribute to a vibrant intellectual community, fostering growth and development in critical thinking and public speaking skills.