

Mehdi Hussain

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EDUCATION

University of California, Berkeley | Berkeley, CA

August 2024 - May 2027

B.S. in Electrical Engineering and Computer Sciences (EECS) | GPA: 3.6/4.0

Courses: Designing Information Devices and Systems (Signals, Systems, Linear Algebra), Data Structures & Algorithms, Artificial Intelligence, Machine Learning, Computer Architecture

RELEVANT EXPERIENCE

Siemens Energy (Omnterra) | Raleigh, NC

May. 2026 - Aug. 2026

Electrical Engineering Intern

- Supported simulation and validation of **High-Voltage Direct Current (HVDC)** transmission systems used to **deliver bulk power** across long-distance and **grid-interconnection** projects.
- Built **Python automation scripts** to automatically **clean & analyze converter-station** signal data, **automate repetitive substation testing tasks**, and reduce manual data-processing time for engineers.
- Developed **Python software & REST APIs** to enable various Boston Dynamics Spot Robot capabilities

Solus Robotics | Berkeley, CA

Jan 2026 - Present

Co-Founder and Chief Operating Officer

- Leading a team of engineers to develop the first **Robotics Development Environment (RDE)** integrating 20+ tools across software, hardware, electrical, and simulation development.
- Developed a **multimodal "fingerprint" model** that resolves the same physical component across tools by fusing semantic, supply-chain (MPN), topological, and spatial signals.
- Shipped MVP to **various research labs** and iterated based on collected feedback from 50+ engineers.
- Awarded **Top 4 Finalist** out of ~326 teams at the Y Combinator x Google DeepMind Hackathon.

Finabl | Berkeley, CA

Aug. 2024 - Dec. 2025

Co-Founder and Chief Operating Officer

- Led a team of four engineers/designers to create an innovative **fintech investment-education platform** for college students, combining structured lessons, AI-generated portfolios, and live paper trading against real market prices.
- Developed a native **SwiftUI iOS App** and **Node.js/Express REST API** integrating 7+ financial APIs including Alpaca, Plaid & Polygon.io
- Built a **RAG-based AI tutor** using ChromaDB vector search and MiniLM & Engineered a **custom paper-trading engine** executing in-app orders at live market prices.

PROJECTS

Inexpensive EEG-Controlled Prosthetic Arm using AI and ML

Aug. 2023 - May. 2024

Duke University | Research Project

- Conducted an engineering research project under Dr. Megan Madonna to design and prototype a low-cost, non-invasive **EEG-controlled prosthetic arm** using **EEG & Haptic Sensors** and custom-made **CAD** components.

Glasses for the Blind and Visually Impaired Using AI and OpenCV

Aug. 2022 - May. 2023

International Science and Engineering Fair | Research Project

- Designed and built glasses that aid the blind & visually impaired to be able to detect objects and text around them through auditory means using a **Raspberry Pi**, **OpenCV**, and **various AI/ML technologies**.
- Used **YOLOv7**, **OpenCV**, and **PyTesseract OCR** in order to create an object-detection system to accurately detect objects and object distance to the user.

TECHNICAL SKILLS

Languages: Java, Python (Pandas, Matplotlib, Plotly, PyTorch), JavaScript, C, C#, C++, Swift, TypeScript, Assembly (RISC-V), React/React-Native, SQL, Next.js

Tools and Frameworks: Node.js, React, Docker, OpenCV, Git, Figma, Tailwind, AWS, Azure, GCP, TensorFlow, Arduino, EEG, CAD, MATLAB, MongoDB, LLM/Claude API/Gemini API/OpenAI API, Embedded Systems, PostgreSQL, RAG, ROS, FastAPI, Electron