Amit Kumar-Hermosillo

Electrical and Computer Engineering Student

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EDUCATION

OLIN COLLEGE OF ENGINEERING | BACHELOR OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

September 2021 - May 2025 | Needham, MA | Cum. GPA: 3.8

- → Recipient of 50% Olin Merit Scholarship
- → Relevant Coursework: Data Structures and Algorithms (**Go**), Software Design (**Python**), Data Science (**Python**), Discrete Mathematics, Principles of Integrated Engineering, Linear Algebra and Multivariable Calculus (**MATLAB**)

EXPERIENCE

GOOGLE | STEP INTERN

May 2023 - August 2023 | Seattle, WA

- → Automated Transfer Appliance troubleshooting by designing and implementing a **Pub/Sub** based remote command execution platform in **Go** with cross-language interfacing in **Protocol Buffers**, increasing efficiency by up to 11x
- → Integrated platform into **Angular**-based web portal and made additional UI improvements to streamline user experience

AMAZON | SOFTWARE DEVELOPMENT ENGINEER PROPEL INTERN

May 2022 – August 2022 | Seattle, WA

- → Overhauled inventory compliance tool, allowing company-wide users to search and suppress defective inventory
- → Refined UI to add 3 advanced search capabilities and improve inadvertent error protection (**JavaScript/React/Redux**)
- → Significantly expanded back-end (**Java**) functionality by adding 3 new granularities of action and persistence

OLIN FORMULA SAE ELECTRIC | ELECTRICAL DESIGN LEAD

Electrical Design Lead (Present), LV Systems Lead (2022), Electrical Engineer (2021) | Needham, MA

- → Oversee team of 30+ engineers in vehicle design and development, including a team-wide transition from 8-bit AVR to 32-bit **ARM** microcontrollers and a custom, modular sensing and telemetry suite
- → Led and mentored team of 5 new engineers in designing hardware (**KiCAD**) and firmware (**C**) for a serviceable, modular and backwards-compatible cockpit and driver control module as LV Systems Lead
- → Writing a bootloader in **Rust** for **STM32** microcontrollers allowing for vehicle software updates over a custom **CAN**-based protocol (in progress)

PROJECTS

NAVIGATION FOR BLIND USERS

- → Co-designed market-ready high precision navigation solutions leveraging augmented-reality technology for blind users
- → Designed and assembled custom printed circuit board for iOS-compatible handheld Bluetooth controller
- → Validated designs by user testing with members of the blind community and Perkins School for the Blind

DISPRAILLE MAKEATHON TEAM

- → Built a portable braille display that detects and parses text surrounding the user using **Python**, **OpenCV**, and **Tesseract** and converts it to braille with a 6-pin tactile interface controlled through **Arduino**
- → Team of four won 2023 MakeHarvard Original Prize for best project using only provided materials

SKILLS

Software   Python • Rust • C • Go • Java • Javascript/Typescript • MATLAB • React • Redux • Angular • Numpy/Pandas

Tools/Platforms   AWS • Google Cloud • Linux • Git/Github • Bazel • LaTeX • PCB Design (KiCAD) • PCB Assembly/Rework

Languages   Spanish • Mandarin Chinese • Tamil

EXTRACURRICULARS

OLIN MIX AND LATINX ORGANIZATIONS

- → Belong to two campus organizations that support first generation students and students of color through campus speakers and conference attendance, including SHPE and NSBE

CONSIDER THIS PODCAST

- → Wrote, recorded, edited, and marketed Consider This podcast – over 900 listeners in 36 states and 23 countries

CAPTAIN OF OLIN ULTIMATE FRISBEE TEAM