Richard Li

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Software engineering student looking for internship opportunities in summer 2023.

PERSONAL WEBSITE: https://richardli03.github.io

Coded a personal website using HTML, CSS, JavaScript, and Bootstrap. On this website you'll learn a lot about the non-software developer me. I'm excited to meet you!

EDUCATION

Olin College of Engineering [Needham, MA]   **May 2025**
- Bachelors of Science in Engineering: Computing (GPA: 4.0/4.0)
- Relevant Coursework: Data Structures and Algorithms, Discrete Math, Software Design, Quantitative Engineering Analysis

EXPERIENCE

Olin Electric Motorsports - https://github.com/olin-electric-motorsports/olin-electric-motorsports

Working as a sub-team lead on a team of 50+ engineers to design, build, test, and race an electric car for Formula SAE.

Team Lead: Sensing and Modeling   **May 2022 - Present**
- Leading a team to design and implement sensing and data collection capabilities on the car, create new modeling tools, and formalize existing ones.
- Designed the harnessing and PCB placement around the car in communication with fellow leads.

Telemetry: Real-Time Data Visualization - https://github.com/richardli03/formula-personal.git   **Sept 2021 - Present**
- Using Python and Docker, created data pipeline to capture Serial data streamed from radio transceiver and replay previously recorded data streams
- Created a real-time vehicle status visualizer system to assist in driver-to-team communication during a race

OCCaM Lab Research Assistant - https://github.com/richardli03/occam-playground

Creating a suite of accessibility tools and applications for iOS devices using AR technology for the blind/visually impaired community.

Visual Alignment with ARGeoAnchors - https://github.com/occamLab/Clew/tree/ClewgleMapsARGeoAnchor   **Dec 2021 - June 2022**
- Used Swift and ARKit to create an AR-based navigation app for the visually-impaired.
- Implemented iterative closest point alignment algorithm to minimize navigational errors
- Co-designed with 60+ members of the blind/visually-impaired community to improve UI/UX.

Invisible Map - https://github.com/occamLab/invisible-map-generation   **June 2022 - Present**
- Using Python(NumPy, Pandas, and Matplotlib), built a back-end system to improve the optimization algorithm used to correct for drift and inaccuracy in positional detection.
- Created a suite of benchmarking tools to parse and evaluate the quality of 3-D maps.

SOFTWARE PROJECTS

           Dec 2021 - Jan 2022

Zao: Interactive Terminal Assistant!
https://github.com/richardli03/Zao
- Used Python and Bash to write a package for the user's terminal containing scripts that would greet the user, tell the user the weather, and allow the user to add/finish tasks from a to-do list.
- Utilized APIs to gather data before packaging for the user.

SKILLS

- **Software:** Python, MATLAB, Linux/Unix, Git, Swift, LaTeX, Docker, SQL, Bash, and Javascript.
- **Language:** Mandarin Chinese and professional fluency in French.
- **Music:** Piano, clarinet, guitar, and ukulele, experienced with Logic Pro X and other Digital Audio Workstations