

Coby Maybrook

cmjoel21@gmail.com | (847) 964-3410 | linkedin.com/in/cobymaybrook

EDUCATION

B.S. Biomedical Engineering | University of Missouri | GPA: 3.0 | Feb 2025 - Dec 2027

B.S. Biomedical Engineering | Milwaukee School of Engineering | GPA: 3.38 | Aug 2022 - Transferred

Study Abroad | Victoria University of Wellington, New Zealand | Feb 2024 - June 2024

INTERNSHIPS

Design Transfer Intern | GE Healthcare | Florence, SC | May 2025 - Aug 2025

- Conducted Production Failure Mode and Effects Analyses (pFMEAs) and resolved non-compliance issues by updating over 400 legacy part specifications to new revision standards
- Collaborated on lifting analysis and tooling development for heavy MRI part installations, ensuring cross-site coordination and efficient part procurement.
- Proposed and evaluated an AR technology integration for the production line, identifying a potential \$70,000 in annual savings and 90% efficiency gains in onboarding and training processes
- Developed AR workflows and outlined implementation paths to support integration within Manufacturing, R&D, and Quality

PROJECT EXPERIENCE

3D Aorta MRI Labeling Project:

- Correctly labeled the Sagittal, Coronal, and Transverse views of the aorta in the MATLAB Medical Imaging App to identify each section of the aorta.
- Highlighted ascending cross-sections of the aorta in MATLAB to build a 3D volume for better visibility.
- Compared 3 different 3D volume scans of an aorta in MATLAB to identify any abnormalities from a healthy aorta.

Embedded Systems Environmental Datalogger Project (Team of 2):

- Developed an environmental datalogger to sample data from temperature, light, and potentiometer sensors with a STM 32 Nucleo Dev Board to allow customizable sampling rates and logging duration.
- Programmed the datalogger to start and stop recording via button inputs in C to provide real-time sensor values upon request and display recorded data in a structured format after logging.
- Integrated functions and arrays to manage varying sensor sample rates and durations to ensure efficient data storage and processing during operation.
- Implemented a user-defined sampling period for each sensor and created an extra feature to apply a moving average filter for data smoothing for advanced functionality.

Emergency Response Safety System Project (Team of 2):

- Conducted extensive research on existing patents and solutions for emergency vehicle alerts using Google Patents to analyze effectiveness and failings.
- Designed and developed a prototype traffic sign system that uses an Arduino and Raspberry Pi to direct drivers out of the path of approaching emergency vehicles.
- Tested the prototype using real-time feedback from experts and potential users to refine the system based on their insights and increase safety to be DOT compliant.
- Created a comprehensive 66-page report documenting the entire process, including problem analysis, design decisions, technical details, testing results, and expert evaluations.

TECHNICAL SKILLS

Software: NI Multisim, MATLAB, MyWorkshop, MS Office, Excel, SolidWorks, AutoCAD, Git, Vercel

Programming: C, MATLAB, TypeScript, JavaScript, HTML/CSS

AI & Software Development: Building and shipping full-stack web apps (Next.js, React) by directing AI coding agents; prompt and context engineering; automation and content-pipeline design

LEADERSHIP EXPERIENCE | CO-CURRICULAR INVOLVEMENT

Vice President | Kapamilya Pinoy Association | Aug 2024 - Dec 2024 | 6 hrs per wk

Member | Filipino Student Association | Feb 2025 - Present | 1 hr per wk

Member | BMES | Aug 2022 - Present | 1 hr per wk