

Jordyn Brosemer

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Education

TUFTS UNIVERSITY – Medford MA

MS: Electrical Engineering:

Human Robot Interaction

- Cum GPA: 3.42 / 4.00

LAFAYETTE COLLEGE – Easton PA

BS: Electrical Computer Engineering

Graduated May 2020

Coursework

Hardware:

Power Electronics • Solid State Circuits •

Electronic Circuits • Control Systems

Software:

Digital Circuits • Embedded Systems • Software

Engineering • Digital Signal Processing • Data

Structures & Algorithms • Communications •

Convex Optimization

Robotics:

Advanced Robotics • Probabilistic Robotics

Skills

Proficient:

Java • MATLAB • C • Python • HTML/CSS

Auto CAD • Inventor • Photoshop

Familiar:

SPICE • System Verilog • C++ •

Tools/Soft Skills/Workflows:

Git • Project Management • Docker • KiCad

Organizations

2017 – 2020 | **WJRH College Radio Engineer**

2019 – 2020 | **Lafayette College Motorsports**

Present | **IEEE Member**

Links

LinkedIn: @jbrosemer

Github: @jbrosemer

Website: www.jbrosemer.com

Experience

LOCKHEED MARTIN | College Student Technical Intern

May 2022 – Dec 2022 | Stratford, CT

- Robotics intern on the blades team integrating machine vision and infrared thermography technologies with UR16e robot to automate helicopter blade inspection.
- UR16 movements programmed with teach pendant, machine vision implemented in Python and MatLab.

SAE FORMULA HYBRID | Team Captain

Aug 2019 – May 2020 | Lafayette College, Easton PA

- Nominated and accepted Project Manager role responsible for coordinating development among team of 25 undergraduate Electrical, Mechanical, and Software engineers.
- Ran organizational meetings and tracked project schedule. Self-taught PCB & CAD design while enhancing interpersonal, oratory, time management and technical skills.

BRANDMUSCLE | Technology Engineering Intern

- Reported to Lead Enterprise Architect. Containerized over a dozen Windows web applications that were pushed into production environment using C#, Visual Studio, and Docker.

Projects

BRACHIATING ROBOT | Python – SolidWorks

- Lead software/hardware designer for final project in Advanced Robotics - a robot that hangs and swings from “branch to branch” of a horizontal ladder. Wrote Python routines that autonomously detect branches and perform autonomous movement by controlling/coordinating robot’s 12 individual motorized joints.

IR Camera Tracker | Analog – SPICE simulation

- Tapped into security camera feed and using totally analog hardware to track an IR light. With a current steering network, flip flops and comparators, built a circuit that injected a crosshair into the feed and automatically searching when no IR was present.

CONVEX ROBOT PATH PLANNING | MatLab – CVX Package

- Coded program that uses artificial sensor readings to create minimal sized elliptical obstacles. Finds minimum distance between obstacles and creates a path between them using convex techniques

INGREDIENT DISPENSER | C/C++ – Autodesk Inventor

- Coded in C++ automated system that dispenses specific amounts/weights of dry/granular/powdered ingredients.
- Developed user interface using UART command window, CAD modeled enclosure and 3D printed dispensing gears.