Jordyn Brosemer

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Education

TUFTS UNIVERSITY – Medford MA
MS in Electrical Engineering:
Human Robot Interaction

- Cum GPA: 3.42 / 4.00

LAFAYETTE COLLEGE – Easton PA
BS in Electrical Computer Engineering
Graduated May 2020

Coursework

- Advanced Robotics
- Probabilistic Robotics
- Embedded Systems
- Software Engineering
- Digital Signal Processing
- Data Structures & Algorithms
- Control Systems
- Power Electronics
- Communication Networks
- Convex Optimization

Skills

Proficient:

Java • MATLAB • C++ • Python •HTML/CSS
Auto CAD • Inventor • Photoshop

Familiar:

SPICE • System Verilog • C • Solidworks

Tools/Soft Skills/Workflows:

Git • Project Management • Docker

Organizations

2017 – 2020 | **WJRH College Radio Engineer**
2019 – 2020 | **Lafayette College Motorsports**
2017 – 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.

ATLAS THE CATCH AND THROW ROBOT | Python – SolidWorks

- Principal hardware / software designer / implementer for robot that catches and throws tennis balls upon recognition of human faces. Coded Python routines to throw ball, rotate robot, and detect human faces. A finite state machine automates entire the operation.

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.