Brennan Drake





📞 +1 404-594-6374 | 🔀 Brennan.drake@comcast.net | 🎟 <u>My Portfolio</u> (brennandrake.github.io)| <u>LinkedIn</u>

Education

Bachelor of Science in Mechanical Engineering Minor in Management Georgia Southern University — May 2023 Honors College Scholar, GPA: 4.0

Professional Experience

Wheel.me — Robotics Deployment Engineer

May 2023 - Present

- Contributed to \$3M+ in company revenue through sales, deployments, and in-field troubleshooting of industrial AMR solutions throughout the United States and Mexico.
- Developed process for site feasibility studies, partner advisement and deployment support, and tradeshow exhibitions.
- Lived and worked in Guanajuato, Mexico, for 4 months, developing Spanish fluency and establishing a new local project team through training and process development.
- Enhanced Linux proficiency, ROS1/ROS2 troubleshooting (utilizing rviz, topic echos, rqt, and docker log analysis), and firmware/software deployment via AWS/ADO.
- Troubleshot CAN communication, electrical/mechanical failures, and suboptimal robot operations and mission structure.

Engineering Internships

2021 - 2022

- Gulfstream Aerospace Additive Manufacturing Lab Co-op: Operated SLA, FDM, and PolyJet 3D printing technologies to produce shop aids and prototypes, improving lab productivity and quality.
- Gulfstream Aerospace Systems Safety Co-op: Authored System Safety Assessments, Fault Hazard Assessments, and Fault Tree Analyses, ensuring compliance with FAA and EASA standards.

Research (View full projects at My Portfolio)

Implementation of Sparse RFID Landmarks into SLAM processes

- Developed an experimental sensor module in pursuit of gathering unique data for landmarking in "lifelong learning" SLAM.
- Implementation of PN5180 RFID reader measurements into RTAB-Map SLAM for robust localization when fused with lidar and odometry measurements.
- Utilized ROS2 Foxy and Python for integration, advancing SLAM techniques for robust mapping in complex environments.

Skills

- Programming: Python, C++, ROS1/2, CAN communication, AWS, and Ansible task development.
- CAD & Design: SolidWorks (CSWA Certified), CATIA, Rapid Prototyping / 3D Printing
- Technical Expertise: Circuit prototyping, soldering, machine and hand tools.
- Soft Skills: Team leadership, project management, technical writing, process optimization.

Leadership & Volunteer Experience

Project Manager / Team Lead, Senior Design Team (Jan 2023 – May 2023)

Organized group effort and direction using scrums, brainstorming sessions, and principles of candor.

Service Coordinator, Epsilon Tau Pi (Jan 2020 – Dec 2020)

Organized community service events, engaging volunteers and fostering team collaboration.

Honors Student Organization (Mar 2020 – Dec 2020)

Led initiatives to improve campus life and connect with local organizations.