Jessica Reiff

Ames, IA | jreiff@iastate.edu | 402-276-7854 | github.com/jreiff627 | linkedin.com/in/jessica-reiff1

Objective

Electrical Engineer seeking a summer internship or co-op related to embedded or control systems development.

Education

Iowa State University, Bachelor of Science in Electrical Engineering – Ames, IA **Expected Dec 2026**

- GPA: 3.87

Professional Experience

Embedded Intern, AthenaGTX – Johnston, IA **May 2025 – Aug 2025**

- Developed embedded C firmware for device prototypes with motion-tracking algorithms using a BMI323 chip and BLE communication with a BMD 350 chip.
- Updated legacy firmware by adding dual-color LED indicators and optimizing pump control.
- Prototyped and debugged hardware/firmware interactions, including developing an Android app in Java to test BLE connectivity and resolve UI synchronization issues.
- Collaborated with hardware and mechanical teams on PCB design and produced technical documentation.

MATLAB Student Ambassador, MathWorks – Ames, IA **Jan 2025 – Present**

- Coordinated workshops and seminars to demonstrate MATLAB's capabilities, enhancing students' technical skills.
- Provided peer support and troubleshooting for MATLAB-related issues and optimization best practices.
- Acted as liaison between MathWorks and university, increasing MATLAB adoption through targeted outreach.

Undergraduate Research Assistant, Iowa State College of Engineering – Ames, IA **Mar 2025 – Present**

- Program autonomous driving behaviors on the F1TENTH platform using ROS2, with testing in the F1TENTH Gym simulator and real-world deployment on miniature racecars.
- Design control and planning algorithms for obstacle avoidance, path following, and racing strategies.
- Implement sensor fusion techniques with LiDAR, IMU, and cameras to improve localization accuracy using C++ and Python libraries.

Academic Project

CPRE 288 Embedded Systems: iRobot Service Guide, Python & Pathfinding Lead **Aug 2024 – Dec 2024**

- Developed embedded firmware for microcontrollers, improving system responsiveness and real-time data collection using UART protocols.
- Designed real-time embedded applications using RTOS principles for minimal latency and error-free operation.
- Integrated sensor algorithms and system components into cohesive embedded solution.

Leadership

Electrical Engineer Curriculum Chair, IEEE **Aug 2024 – Present**

- Attend ECPE Curriculum meetings as representative for Electrical Engineering students.
- Coordinate with faculty and peers to provide student feedback on curriculum updates.

Technical Skills

- **Hardware & Lab:** Circuit assembly and troubleshooting, oscilloscopes, PCB prototyping, soldering
- **Programming & Software:** Android Studio, C#, C/C++, Embedded C, Java, MATLAB, Python, ROS2, Simulink, VHDL, Verilog
- **Design & Tools:** AutoCAD, Bluebeam Revu, KiCAD, LTSpice, QuestaSim, SolidWorks
- **Communication Protocols:** BLE, I2C, UART

Honors

Tau Sigma Honor Society **Aug 2023 – Present**