Russell Sutton

russell.sutton.1@utexas.edu | (214) 505 – 6785
linkedin.com/in/russellsutton1

EDUCATION

Bachelor of Science, Aerospace Engineering The University of Texas at Austin December 2020

EXPERIENCE

R&D Engineering Intern – Door Controls USA June 2019 – Present

- Developed IoT embedded systems to establish data collection practices, initiating quality assurance
- Consulted managers and end-users to develop product specifications and identify feasible solutions
- Led decision making on appropriate microcontroller and software platforms to meet requirements
- Directed product development and delegated tasks to team members based on their areas of expertise
- Established product development timelines to ensure buffer time for product deployment issues
- Implemented I^2C and TCP/IP communication protocols
- Constructed Python app for Raspberry Pi's responsible for recording data to SQL Server via custom GUI
- Utilized test driven development to take products from design stages to full implementation
- Aided team members with navigating a Linux development environment
- Extensively documented development process to ease legacy support in addition to training

Battery Protection System Team – UT Solar Vehicles Team August 2019 – Present

- Developed Arm Cortex -M4 firmware for mission critical safety systems
- Integrated sensors to monitor battery module current flow for competition safety specification compliance
- Enabled rapid sensor integration with compartmentalized libraries for reliable reuse of code
- Automated testing to validate system's reliability prior to integrating with expensive battery module

Computations Team – Texas Aerial Robotics December 2017 – January 2019

- Using C++, BASH, and Robot Operating System (ROS) to create autonomous teams of drones
- Developed object tracking and trailing programs to mimic commercial drone software
- Conducted weekly meetings to maintain development schedule and prioritize upcoming tasks
- Modeled dynamic environments in Gazebo Simulation for demonstrations
- Utilized image recognition software based on neural networks for drone localization and navigation
- Learned collaborative programming best practices, including code reviews and formatting conventions

Borden Dairy Plant Project – Simulation Modeling January 2019 – May 2019

- Collected on-site data to develop an accurate baseline production model
- Developed robust model capable of representing multiple production scenarios based on demand
- Utilized discrete event analysis software to model production capabilities and illustrate capacity limitations
- Formed recommendations based on model results and made cost-based evaluations of multiple solutions
- Presented results to industry professionals and received feedback on the integrity of recommendations

SKILLS

Proficient: C++, Embedded C, Python, MatLab, SimuLink, SQL, Excel, Arena Simulation, Raspberry Pi, Arduino
Familiar: ARM Keil Debugger, SolidWorks 3D CAD, Java, LabVIEW