

Noah LaFerriere

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EDUCATION

University of Pittsburgh

Pittsburgh, PA

- Bachelor of Science: Computer Science, 105 credits earned to date, expected May 2021, GPA: 3.2
 - Relevant Coursework: Operating Systems, Systems Software, Algorithm Implementation, Data Structures, Data Networks, Cloud Computing, Intro to Machine Learning, Software Engineering, Computer Architecture
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EXPERIENCE

Software Engineer Intern

VetNOW, One Health Solutions – May 2020 – August 2020, December 2020 – Present

- Developed Docker infrastructure and deployment pipeline for our platform to address development bottlenecks
- Researched, designed and implemented full stack solutions to integrate Bluetooth medical sensors (ECG, Camera, SpO2 etc) with the browser-based platform
- Reverse engineered medical devices and Android apps to decode Bluetooth LE communication protocols and developed solutions to enable communication between the devices and a web browser
- Developed real-time web based graphing utility to visualize ECG and SpO2 output waveforms
- Worked with Quality Assurance engineers to develop automated QA system, created CI/CD pipeline and custom tooling to facilitate development and automate operational overhead

Software Engineer Intern

Carnegie Mellon University, Robotics Institute – September 2019 – May 2020

- Created Docker infrastructure and accompanying deployment pipeline for the drones used in the Mohamed Bin Zayed International Robotics Challenge (MBZIRC)
- Automated drone & stack startup process, reducing startup time 10x
- Implemented ROS supervisor node to eliminate manual intervention in the automated startup process
- Implemented automated data collection to increase productivity at remote test site
- Trained YOLOv3 neural networks to detect various competition artifacts. Enabled training on a cluster with multiple GPU's, increasing training speed 12x
- Responsible for critical infrastructure of onboard systems for all 5 robots during competition in Abu Dhabi

Team Lead

University of Pittsburgh, Robotics and Automation Society (RAS) – June 2019 - January 2020

- Gained leadership and teamwork skills leading a team of 10 students working on the Intelligent Ground Vehicle Competition (IGVC) for Pitt RAS.
 - Gained task management and public speaking skills leading twice weekly team meetings
 - Integrated all sensors with ROS, including IMU, encoder, camera, and lidar
 - Setup hardware, implemented low level embedded controls system and integrated it with ROS
 - Designed and implemented robot localization system
 - Created a TensorFlow cone detection system and optimized it to run inference 3x faster on a CPU
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SKILLS

Computer Languages

- Proficient: Python, Bash, C++/C, Java
- Comfortable: C#, JavaScript, CSS, HTML

Technologies & Frameworks

- Linux, ROS, Docker, Docker-compose, Git, AWS, GCP, Jenkins, Ansible, Selenium, Testrail, Jira, TensorFlow, Darknet, OpenVINO, OpenCV, NVIDIA Jetson, Intel Realsense, NodeJS, Bluetooth LE
- Platforms: Ubuntu (7 years) – OSX (10 years) – Windows 10 (3 years)

Soft Skills

- Agile, Team Building, Leadership, Public Speaking, Teamwork, Writing, Resource Management