

Noah LaFerriere

Junior Software Engineer

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Denver, CO

EXPERIENCE

Software QA Engineer

rTeam, One Health Solutions

12/2020 - 06/2021 Pittsburgh, PA

Worked part-time remotely during my last college semester as a QA Engineer on a telehealth SaaS platform. Manually tested and resolved bugs with an offshore development team, and developed and maintained automated QA systems.

- Developed SMS failure notification system, ensuring constant availability of critical business logic
- Worked with clients to identify bugs, identified root issues and worked with development team to resolve bugs
- Carried out smoke tests for new releases and communicated issues to the offshore development team

Software Engineer Intern

VetNOW, One Health Solutions

05/2020 - 08/2020 Pittsburgh, PA

Worked as a full time intern over the summer for a veterinary telehealth SaaS startup. Wore many hats developing new software, containerizing existing software and developing QA systems.

- Dockerized and built deployment pipeline and tooling for the VetNOW SaaS platform (Apache, Symfony, MySQL, Angular)
- Researched, designed and implemented JavaScript solutions to integrate Bluetooth medical devices (ECG, Camera, SpO2) with web platform
- Developed JavaScript graphing utility to visualize ECG waveforms
- Developed Python QA testrunner server and integrated with 3rd party reporting API
- Taught QA Engineers how to use Python and Selenium to create tests

Software Engineer Intern

Carnegie Mellon University, Robotics Institute

09/2019 - 05/2020 Pittsburgh, PA

Worked 30 hrs a week during my junior year of college. I worked on autonomous robots with a team of MS students under Dr. Sebastian Scherer and Dr. Oliver Kroemer. Sponsored to travel to Abu Dhabi and compete for 2 weeks as a critical team member.

- Automated robot deployments and startups using Docker, Python and Bash scripts, reducing startup time 10x
- Implemented error detecting and correcting watchdog scripts with ROS to ensure smooth autonomous deployments
- Developed autonomous data collection scripts to increase testing efficiency
- Developed containerized data processing pipeline to enable training on a Slurm cluster, increasing training throughput 12x
- Trained and optimized YOLOv3 object detectors that achieved 90% accuracy in competition
- Responsible for critical robot infrastructure in the field, including troubleshooting, diagnosing and resolving system issues

SKILLS

Languages (Most to least experienced)

Python Bash Javascript Java C C++

Technologies

Linux Docker Git ROS GCP AWS

EDUCATION

BS Computer Science

University of Pittsburgh

09/2017 - 05/2021

- Departmental GPA 3.5 | Overall GPA: 3.3
- Graduated with Honors

PROJECTS

StockStack

02/2021 - 04/2021

https://www.noahlaf.me/projects/stockstack/

Full stack web application, created as a final project for my Intro to Web Programming class

- Tech Stack: **Python**(Flask), **Docker**, **GCP AppEngine** and **Datastore**, **JavaScript**, **HTML/CSS**
- Integrates with 3rd party APIs to display data about relevant stocks
- Developed REST API and User Interface
- Users create stock portfolios and the app calculates historical performance and net worth
- Served as Team Lead on my 3-person team

Machine Learning Toolkit

10/2020 - 12/2020

https://www.noahlaf.me/projects/ml_toolkit/

Final project for my Intro to Cloud Computing class.

- Tech Stack: **Docker**, **Docker-compose**, **Python**, **Bash**, **NodeJS**, **JavaScript**, **HTML/CSS**
- This was an open-ended project where I was required to containerize machine learning applications (ex. Spark, Hadoop, Tensorflow) and create a GUI to launch the containerized applications
- Containerized ~10 applications, created microservice architecture using docker-compose to orchestrate services, and created web interface capable of launching containers on the host

Pitt RAS - Racecar

06/2019 - 01/2020

https://www.noahlaf.me/posts/pittrac/

Served as Team Lead for Pitt RAS's autonomous vehicle project. Developed autonomy on a 1/10th scale car with ROS.

- Tech Stack: **ROS**, **Docker**, **Python**, **C++**, **TensorFlow**, **Bash**
- Led team of 10 students and led 2x weekly team meeting
- Coordinated with sponsors to secure a \$10,000 donation for a Velodyne Lidar
- Integrated sensors with ROS (IMU, encoder, camera, Lidar)
- Created embedded controls system and integrated with ROS
- Created TensorFlow cone detection system, optimized for 3x performance on onboard computer
- Successfully achieved autonomous object avoidance