RYAN SHAPPA

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SKILLS

Software: Python, C++, JavaScript, Java, HTML5, CSS, AWS, GCP, Azure, Bash/Shell, SQL, Git/Github, Jira, Ansible, Linux/Unix
Moodules/Libraries: Pytorch, OpenCV, REACT, NEAT, Numpy, Pandas, Tensorflow, Spring
Professional: Inter-personal, Communication, Collaboration, Presentations, Problem Solving, Teamwork, Adaptive, Spanish Speaking

WORK EXPERIENCE

GovOS — Austin, Tx

DevOps Engineer — *July 2021 - Present*

- Create software infrastructures using AWS, GCP, Azure (Iaas) for local governments to use as a software as a service (Saas)
- Fix code errors, write unit tests and integration tests using Java and Python to practice CI/CD before merging code, and collaborate with DevOps to ensure logical and maintainable code for deployment

Poolin Mining — Austin, Tx

Software Engineer — *January 2022-July 2022*

- Led a team of technicians to monitor the site, troubleshoot problems with miners, repair miners, implement new methodologies to maintain miner uptime
- Wrote and deployed Python scripts using Git and ssh to automize miner maintenance and improve bitcoin mining hashrate
- Collaborated with software engineers using an agile framework to make improvements to the UI/UX of monitoring software web app using JavaScript
- Developed a GUI using JavaScript to show MySQL datasets to interpret and compare real-time and day after market electricity prices from Texas grid

Exelon Nuclear — Morris, IL

Intern – Engineer — *June 2020-August 2020*

- Collaborated with team of interns to establish the fundamental design considerations and research for programming remote monitoring devices to be installed for remote plant use
- Analyzed Python code, schematics of electronics, and physical parts to make design improvements to monitoring devices
- Performed code reviews with lead software engineers to enhance the ability to write clean, manageable code for deployment

Fermi National Acceleratory Laboratory — Batavia, IL

Intern-Department of Energy, Visiting faculty program — *May 2019-February 2020*

- Created simulations using Virtual Python to program advanced mechanic motion simulations to then implement the same scenarios but in the quantum mechanic setting
- Wrote unit tests to help acquire data from magnetometer using MicroDAQ library for Python programming interface

PROJECTS

Flappy Bird with Machine Learning AI (NEAT)

Personal project — *January 2022*

- Programmed Flappy Bird game using Pygame and incorporated a Genetic machine learning algorithm (NEAT) as well as other Python modules to have the computer learn how to win the game
- Created game version for human to play, or computer AI version which will train itself to improve using neural networks
- Researched neural networks, TensorFlow, and machine learning algorithms to create this project

Self-Balancing Robot Race

Control Theory Competition/Project — *Spring 2021*

- Used root cause analysis to fabricate and program self-balancing robot to undergo a race task
- Programmed robot a series of tasks to stand up, balance, race 10 feet without falling, and balance again using a RaspberryPi microcontroller coded with Python and Pytorch framework
- Used OpenCv module for video processing computer vision on robot to see obstacles and stop before crashing into them

FPGA RC Car

Summer Project — *Summer 2021*

- Designed, programmed, tested, and constructed fully functional remote-controlled car using FPGA's
- Implemented "traffic light" recognition for car to stop from sight of red LED and start driving with green LED

EDUCATION

North Central College — Naperville, Illinois

Bachelor of Science in Computer Science & Applied Physics, Minor in Mathematics. — September 2017 – December 2021