JUN IP

Herndon, Virginia

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Education

George Mason University   **Aug 2021 – May 2025**
Bachelor of Science in Computer Science   *Fairfax, Virginia*

Relevant Coursework: Essentials of Computer Science, Intro Computer Programming, Principles of Computing, Object-Oriented Programming, Calculus I, Calculus II

Technical Skills

Languages: Python, Java, C++, JavaScript, HTML/CSS
Developer Tools: Visual Studio Code, PyCharm, Atom, jGRASP, Eclipse, Arduino IDE
Technologies/Frameworks: GitHub, Heroku, Linux, Raspberry Pi, Arduino, OpenCV, TensorFlow

Projects

Snake Game Neural Network | *Python, PyCharm, GitHub*   **Aug 2022**
- Coded a mini-game and implemented AI bots to learn how to play the game with basic information
- Constructed a neural network consisting of 64 nodes that map to how the AI bot plays the snake game
- Integrated a genetic learning algorithm to teach the bot how to learn to play the game itself and eventually win

Discord Team Creator Bot | *Python, PyCharm, Heroku, GitHub, Discord API*   **Feb 2021 - Jan 2022**
- Developed a Discord bot on a team of 2 that automatically sorts players onto teams and voice channels based on the players' game rankings
- Incorporated a user interface which let users request to join private voice channels and notified relevant members
- Regulated Heroku to host the bot during active times of the day and to monitor logs/debug any issues
- Organized and managed the code on GitHub while using a webhook to facilitate access of log updates and debug the code in a test server

Road Lane Detection Simulation | *Python, PyCharm, OpenCV*   **Dec 2020**
- Accessed the Open Computer Vision framework to detect road lanes in the video game *Unturned*
- Applied visual processing filter methods, such as converting images to grayscale and applying Gaussian blurs, to ensure clean edge detection
- Established in-game self-correcting steering to safely get from point A to point B

Extracurricular

Inventors and Innovations Team   **Sep 2022 - Present**
Team Member   *George Mason University*
- Collaborated in a team working with a professor to design and build a Learning Robot Prototype(SageBot), a learning robot that teaches students the fascinating aspects of STEM through imagination, interactivity, and in-depth content knowledge
- Tested prototype designs with an ESP-32 micro-controller wired on a breadboard imported with Arduino code and mounted onto a 3-D printed chassis included with 4 wheels and operated with 2 DC motors equipped with gearboxes
- Built edge detection system using infrared sensors which send software interrupts when robot gets too close to edges
- Utilized the ESP-32's Bluetooth module using BlueFruit API allowing control of robot through user's phone

Experience

Starship Technologies   **Aug 2021 - May 2022**
Robotic Customer Experience Associate   *George Mason University*
- Monitored 20+ hours per week of food delivery robot operations and maintained the health of robots across campus
- Worked on a small team of 3 people to ensure the quality of 50+ robots and completed hardware repairs
- Coordinated with 14 merchants, including Starbucks, Subway, and more, to ensure business needs

INOVA Health System   **Apr 2019 - Jun 2019**
Volunteer Staff Member   *Fairfax, Virginia*
- Volunteered for 50+ hours and worked on a team of 6 to aid in hospital processes
- Managed inventory and retail for 3 gift shops on campus and delivered various gifts to patients
- Assisted in discharging patients and disinfecting medical equipment for Patient Support Services