William Iadarola

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Education

New York University, Tandon School of Engineering, Brooklyn, NY — May 2023
Bachelor of Science, Major in Computer Science, Minor in Mathematics
Relevant Coursework: Software Engineering, Artificial Intelligence, Machine Learning, Design & Analysis of Algorithms, Object Oriented Programming, Data Structures & Algorithms

Technical Skills

Coding Languages: Python, C, C++, Java, HTML, JavaScript, PHP, SQL, ASM, Verilog
Operating Systems: Windows, Linux, Raspberry Pi Lite, Raspberry Pi
Other Tools: Arduino, SolidWorks, Fusion 360, Fritzing, Revit

Experience

Software Engineer: ***ExoAnalytic Solutions*****,** Foothill Ranch, CA — August 2022-Present
Software Engineering Intern: ***ExoAnalytic Solutions*****,** Foothill Ranch, CA — May 2022-Aug 2022

- Improve backend efficiency of warfighter visualization engine in JavaScript
- Optimized pathfinding algorithm by simplifying and combining polygons, leading to a 1500% decrease in runtime
- Created sprite clustering algorithm using R-trees to increase clarity and engine display capabilities
- Presented company-wide briefing on integration of multithreading through HTML5 Web Workers to improve algorithm efficiencies

Admin Teaching Assistant: ***New York University, General Engineering Department***, New York, NY — August 2021-Present
Teaching Assistant: ***New York University, General Engineering Department***, New York, NY — August 2020-August 2021

- Guide teams through rapid design and fabrication of functional complex engineering projects
- Conduct technical trainings on circuits, soldering, CAD, and programming
- Oversee asset management of materials and supplies required by over 700 students and staff annually

Intelligence Subdivision Member: ***New York University, RoboSub***, New York, NY — August 2021-Present

- Develop algorithms for autonomous vehicles to complete realistic underwater missions in interuniversity competitions
- Design submarine subroutines that utilize computer vision, gyroscopes, and ultrasonic sensors

Projects

InvesTio (JavaScript, SQL (Oracle)) — Fall 2022

- Designed an educational online platform to help users learn basic financial skills
- Developed back-end code capable of supporting lessons, quizzes, and user accounts
- Collaborated with a team of three undergraduate students to implement the completed system

Three.js Mini-Projects (JavaScript) — Summer 2022

- Completed diverse set of coding tasks to familiarize self with a JavaScript WebGL framework
- Gained experience with shaders, cameras, 2D/3D spaces, meshes, and animation

Airline Ticket Reservation System (JavaScript, HTML, PHP, SQL (MySQL)) — Spring 2022

- Developed full stack platform for Introduction to Databases class project
- Supported features such as ticket purchasing, permission levels, and querying flight data

Wi-Fi Remote Control Car (Arduino, Python) — Summer 2020

- Built and programmed a VEX car that communicated over Wi-Fi using an ESP8266 board
- Employed Python sockets to bounce connection signals to various routers across a high school campus
- Problem solved issues such as decreasing network packet size and increasing message efficiency

Activities

Member, New York University Magic the Gathering Club — Aug 2022-Present
Summer Mentor, Santa Margarita Catholic Highschool FIRST Robotics Club — August 2019-August 2021