Miguel Garcia

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EDUCATION

New Jersey Institute of Technology Newark, NJ
Bachelor of Science in Computer Engineering September 2022 - December 2026

Relevant Coursework: Computer Science 1 & 2 (C++), Computer Organization and Architecture, Applied Machine Learning, Calculus 3, Differential Equations, Linear Algebra, Discrete Analysis, Principles of Operating Systems.

SKILLS

Programming Languages: Python, C/C++, HTML/CSS, JavaScript
Development Tools & Libraries: React, Git, JetPack- Linux (Ubuntu), Docker, MongoDB
AI & Machine Learning: Real-time classification, Object detection (DetectNet, TorchVision), Computer Vision

EXPERIENCE

Full Stack Software Development Co-op, Verizon - Basking Ridge, NJ January 2025 - Present

- Engineering a voice assistant by designing and implementing a front-end interface using HTML, CSS, JavaScript, and React library, to ensure a seamless and dynamic user experience.
- Developing a multi-level conversational agent system, integrating natural language processing techniques to enhance user interaction and engagement by refining responses with an intent matching layer.
- Continuously adapting project deliverables to align with changing business requirements, and engaging in ongoing research on Product Management methodologies to bridge the gap between technical development and business objectives.

Electronic Arts Software Engineering Program, Forage - Remote March 2025

- Proposed a new feature for the EA Sports College Football and wrote a Feature Proposal.
- Built a class diagram and created a header file in C++ with class definitions for each object.
- Patched a bugfix and optimized the EA Sports College Football codebase by implementing an improved data structure.

Network Performance Intern, Verizon - Hempstead, NY June 2024 – August 2024

- Collaborated closely with Verizon Engineers to optimize information and data for Verizon's fiber optic communication systems also known as FIOS, for certain boroughs of New York.
- Worked on the Fiber to the Premises (FTTP) Tracker and Build Driver (which determines the purpose and necessity for a job) projects, which focused on the organization and creation of workflows that resulted in the update of over 750+ addresses in Brooklyn, 600+ addresses in Queens, and 2000+ Builder Drivers for 2024.

Data Systems Intern, HISPA - Remote June 2023 – July 2023

- Optimized data entry systems and workflows to enhance the accuracy and efficiency of information management within the organization utilizing advanced data processing tools in Salesforce.
- Organized 10 years of data from Excel sheets, ensuring seamless data migration and accessibility resulting in an updated and streamlined information collection system for over 60 companies, improving data retrieval and analysis capabilities.

PROJECTS

RayTracing Project - C++ | Graphics Programming May 2025- Present

- Developing a path tracer in C++ to simulate realistic lighting effects, including shadows, reflections, and indirect illumination while leveraging object-oriented programming principles, operator overloading, and vector mathematics to efficiently implement ray-object intersections, shading models, and indirect lighting techniques

Autonomous Obstacle Recognition Simulation - Jetson Orin Nano | Python | Pygame December 2024

- Developed a real-time obstacle avoidance system integrating Jetson Nano's classification model with a Pygame based graphical simulation and socket server-client architecture for live data transmission.