Jorgeandres Alvarez

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Education

Florida Polytechnic University   Expected Graduation Date: May 2026

Bachelor's in **Computer Science** | GPA 3.40/4.00

Relevant Coursework

- Data Structures, Machine Learning, Database 1, Algorithm Analysis and Design, Computer Networks, Object-Oriented Programming, Secure Software Engineering, User Interface and User Experience, Operating Systems Concepts, Computer Architecture, Software Verification and Quality Assurance

Experience

Florida Polytechnic University   Lakeland, FL

AI Medical Research Assistant   September 2025 — Present

- Conducted research with the use of **Computer Vision** and smartphones to diagnose thyroid cancer using **Artificial Intelligence** to reduce the need for expensive technology in lesser-income countries.
- Trained a **Vision Language Model** using real microscopic images from cytology records and a **Convolutional Neural Network** as our template for the Machine Learning process.

Florida Polytechnic University   Lakeland, FL

Autonomous Vehicle Vice President/Networks Lead   August 2025 — Present

- Designed the Network communication for the team's autonomous boat using A Wi-Fi home base attached to the hull of the boat. A **GUI** was connected to the boat to deliver its **telemetry** to a computer.
- Acted as the Vice President of the Project organizing leaders, being in charge of the media for the team, and acting as the President when unavailable.

Wiring Technologies Inc.   Lakeland, FL

Low-Voltage Technician/Cable Technician   December 2024 — August 2025

- Laid the infrastructure for the wiring system in a hospital being built in south Lakeland to apply my work on the physical layer and understand how it affects the **Data Layer**.
- Streamlined cable routing by selecting efficient paths, cutting material use while maintaining system integrity.

Integrity School of the Arts   Lakeland, FL

Coding and Math tutor   August 2022 — May 2025

- Taught classes on the concepts of **Python**, **C++**, and **Java**, with class sizes ranging from 10 to 20 students, covering both middle school and high school levels.
- Developed and implemented engaging lesson plans and hands-on projects to reinforce programming concepts, fostering both individual and collaborative learning in diverse classroom settings.

Projects

Digital Health Literacy Companion Tool

- Sponsored by Lakeland Regional Health to design and program software in **Python** that will replace discharge papers in hospitals. Through the use of **Artificial Intelligence** and **Database Management Systems** we will make the creation of these papers quicker and more personalized so nurses can focus on their other duties.

CRM Software Project   January 2024-Present

- Sponsored to begin the process of creating a **CRM software** to be used as a database and customer management software for two startup companies that are looking for affordable yet efficient solutions.

Socket-Based Network Project   November 2024

- Developed a **Client-Server–Based Service** designed to share files between users on a centralized server. This system enables users to upload files to the hosted server and securely download them as needed.

Leadership

Presidential Ambassador   2025-2026

- Represented Florida Polytechnic University by promoting its vision and success to professional partners, attending formal events, conducting tours for potential collaborators, and engaging in community service.

SHPE Member   2025-2026

- Joined the Florida Polytechnic Chapter of SHPE in Region 7 as a new member to enhance my professional skills.

IEEE Webmaster   2024-2025

- Managed the social media page and gave advice on topics used in the Computer Society's meetings.

Technical Skills

- Languages: C, C++, CSS, Python, Java, SQL, HTML, Assembly Code, Excel, Binary, Hexadecimal.
- Software: Visual Studio Code, ROS2, Gazebo, MySQL, PyCharm, VirtualBox, Wireshark, Ubuntu, React.