

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, Statistics, Algorithm Analysis and Design, Computational Linear Algebra, Computer Networks, Object-Oriented Programming, Secure Software Engineering, Formal Languages and Automata, User Interface and User Experience, Software Analysis and Design, Operating Systems Concepts.

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 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.
- Developed a **Pathfinding Algorithm** used by the boat to complete challenges such as traversing through certain colored buoys, docking in a specifically labeled area, and firing a ball at a target.

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

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.

Audio Conversion Project

December 2022

- Collaborated as part of a team to implement a **software application** that allows users to upload audio files, automatically enhances the audio quality, and generates detailed analytical statistics related to the file.

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