# Bryan Aneyro Hernandez

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# Summary

Recent Computer Science graduate with a strong foundation in algorithms, data structures, and backend development. Skilled in building scalable web services, REST APIs, and full-stack applications using Java, Python, Node.js, and MongoDB. Proven ability to work in Agile teams, solve complex problems, and deliver production-grade software.

Actively seeking Software Engineer or Backend Developer roles to contribute to innovative, mission-driven teams.

#### Education

#### University of Central Florida

Bachelor of Science in Computer Science

Aug. 2021 – May 2025

GPA: 3.476

### Relevant Coursework

- Data Structures
- Algorithms Analysis
- Senior Design I and II
- OOP Java (Java\_OOP)

- Robot Vision (Robot-Vision)
- Enterprise Computing (Enterprise-Computing)
- System Software (PL-0-Compiler)

# **Projects**

#### PL/0 Compiler | C, Compiler Design | Repository: PL-0-Compiler

- Collaborated on building a four-module compiler for the PL/0 language targeting a virtual machine.
- Designed and implemented lexical analysis, parsing, and code generation from scratch using C.
- Gained deep understanding of symbol tables, grammar parsing, and runtime environments.

#### **GroupFinder** | *MERN Stack*, *Flutter* | Repository: GroupFinder

- Contributed to the development of a web and mobile app to help students find and join real-time study groups in the university library.
- Developed full-stack study group platform for students to coordinate in real-time using Flutter and MERN stack.
- Designed RESTful backend in Node.js/Express, integrated MongoDB with Mongoose, and implemented JWT-based
- Enabled interactive map-based UI to join/create study groups with socket updates; deployed on Android and Web.

# Bit by Bryan (Personal Portfolio Website) | Next.js, Tailwind CSS, React, GSAP | Repository: my-portfolio

- Created a personal portfolio with Next.js and Tailwind CSS to highlight projects and resume; deployed via Vercel.
- Enhanced UX with GSAP and Framer Motion animations and mobile responsiveness.
- Implemented custom carousel for project display and stylized navigation with GooevNav and BlurText components.

#### Neural Networks & CNN Training | Python, PyTorch, Jupyter Notebook | Repository: Robot-Vision

- Built and trained deep learning models using PyTorch for image classification tasks on MNIST and CIFAR-10 datasets.
- Built and tested shallow and deep neural nets with various architectures and activations.
- Trained CNNs with varied filter sizes and settings; compared learning rates and epochs.
- Visualized loss and accuracy metrics during training to analyze model behavior and effectiveness.

#### RE-RASSOR: New Arm (Senior Design) | ROS2, Gazebo, MoveIt2, Python, Ubuntu

- Contributed to the development of a robotic arm with 4 joints for a lunar rover in a year-long senior design project.
- Helped simulate and control robotic motion using Gazebo and MoveIt2, integrating URDF/Xacro robot descriptions.
- Implemented ROS2 nodes in Python and C++ to manage inverse kinematics, joint actuation, and trajectory planning.
- Worked collaboratively within a multidisciplinary team to integrate the arm into a full robotic rover system and validate performance in simulation.

#### **Technical Skills**

Languages: Java, Python, C, JavaScript, HTML5, CSS3

Frameworks / Libraries: Node.js, Express.js, React.js, Next.js, JavaFX, Tailwind CSS, Bootstrap, PyTorch

Developer Tools: GitHub, Docker, VS Code, Postman, Ubuntu, Jupyter Notebook

Backend / DevOps: REST APIs, MongoDB, MySQL, JWT Auth, Vercel

Other: Agile, Scrum, Unit Testing

#### Certificates

• ROS2 For Beginners (Level 1, 2, 3)