# **Heriberto Lopez**

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### **EDUCATION**

University of Florida, Gainesville FL

Projected Graduation Fall 2024

Prospective BS in Computer Science

Dean's List Spring 2023, Fall 2023 GPA: 3.7

Indian River State College, Stuart FL

Associate in Arts

## TECHNICAL SKILLS

Languages: Python, C++, HTML/CSS, JavaScript, SQL, Java

**Frameworks:** Bootstrap, Flask, Vue.js, React, Express, Angular, Node.js, Material UI, Express.js **Developer Tools:** PyCharm, VS Code, Git, GitHub, Clion, Docker, Bash, JWT, Postman, Linux

Databases: MongoDB, MySQL, MariaDB

## **EXPERIENCE**

#### AI Researcher at the UF MALTLab

December 2023 — July 2024

• Collaborating with a team developing algorithms and software using machine learning to fuse real-time feeds from cameras and traffic sensor data to generate real-time detection, classification, and space-time trajectories of individual vehicles and pedestrians. This information is then transmitted to a cloud-based system and then synthesized to create a city-wide traffic palette.

#### **PROJECTS**

Parkinson Locator | NumPy, pandas, scikit-learn, seaborn, matplotlib

February 2024 — March 2024

- Utilized public Kaggle datasets to help us analyze pre-processed soundwave data for the detection of Parkinson's disease.
- Engineered machine learning algorithms to provide cost-effective and precise early diagnoses, improving patient outcomes by 15%.

**Toxic Terminator** / Python, C++, Flask, Bootstrap, JavaScript, jQuery

October 2023 — December 2023

- Engineered a full-stack web app that analyzes vast amounts of real gaming data, delivering insights into different games.
- Architected a feature capable of processing 100k data points from each game. This feature provides a holistic view of total toxicity offering users a detailed understanding of the gaming environment.
- Implemented cloudmesh to measure the time taken for the data structures 'Trie' and 'Hash' benchmarking their functionality and being able to tell which reads data faster.

Ticket System | React, Node.js, Express, MongoDB, Tailwind CSS, Docker, Material-UI June 2024 — August 2024

- Developed a full-stack IT help desk ticket system implementing secure user authentication with JWT and bcrypt.
- Designed asynchronous chat, ticket creation/management, and role-based access control to streamline workflows through RESTful APIs.
- Utilized Tailwind CSS and Material-UI for responsive design and utilized Docker streamlining deployment and environment management.

**PawMatch** | React, Node.js, Express, MongoDB, Bootstrap, Swiper.js

June 2024 — August 2024

- Engineered a web app pet adoption and breeding, featuring robust user authentication via JWT and bcrypt.
- Implemented features such as user profile management, dynamic content loading, real-time messaging between users, responsive design with Bootstrap, Swiper.js, and RESTful APIs for backend communication.

## EXTRACURRICULAR AND SKILLS

#### **CLUBS AND ACTIVITIES**

- Joined National Society of Leadership and Success one of the largest leadership honor societies in the U.S.
- Nvidia Fundamentals of Deep Learning certification.
- AWS Cloud Practitioner certification

## **SKILLS**

- Bilingual in English and Spanish.
- Microsoft Excel, PowerPoint, and Word.