Rocio Perales Valdes

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EDUCATION

Georgia Institute of Technology | Major: Computer Science Minor: Law, Science & Technology

May 2028

- GPA: 4.0
- Relevant coursework: Data Structures & Algorithms, Object Oriented Programming, Linear Algebra
- RoboJackets, Kappa Alpha Theta, Global Leadership, Women@CollegeOfComputing, SuperComputing@GT, Running Wreck.

SKILLS

Computing:

- Programming Languages: Java, C++, Python, JavaScript
- AI/ML: TensorFlow, Computer Vision (YOLO models), Autoencoders
- Robotics: ROS2, PID Control,
- Development Tools: Git, GitHub, ClickUp
- Web-dev: HTML, CSS, SQL
- OS: Linux, MacOS, Windows

Languages: English (Proficient), Spanish (Native), French (Conversational)

EXPERIENCE

Software Developer | RoboJackets-RoboCup

Aug. 2024 - Present

- Contribute to code-base to direct multiple robots to play soccer using C++ in a ROS2-based distributed system
- Implement features in a Linux system for real-time navigation and strategic control through a CI workflow
- Earned 2nd place in the Technical Challenge and reached lower bracket semifinals at RoboCup 2025 International Competition

ML Solutions Intern | ZeruDrones

Jun. 2025. - Present

- Building a **computer vision** solution using YOLO models for object detection from drone footage of electrical infrastructure.
- Integrating Convolutional Autoencoders for anomaly detection in powerlines to prevent service interruption

You.com Campus Leader | You.com

Oct. 2024 - May 2025

- Raised brand awareness, organized a workshop on AI agents attended by students from Georgia Tech, Yale, Columbia, NYU
- Attended monthly leadership meetings with cross-functional teams to gain insights into AI industry developments

Head of Software | Robotics First Tech Challenge | BFC #20669

Sept. 2022 - May 2024

- Developed and debugged code in Java using **OOP** and version control through Git
- Led a team writing Java code for Autonomous Movement with PID and Computer Vision through OpenCV
- Achieved top 10 ranking in Israel, won a qualifying competition, and awarded the Design Prize

PROJECTS

AI Safety Fellow | AI Safety Initiative at Georgia Tech

Jan. 2025 - Present

- Leading a research project on global deepfake regulation under Dr. Margaret Kosal, aiming for publication once completed
- Completed semester-long AI Safety Fellowship focused on alignment challenges, reward specification and scalable oversight

Personalized Word Count for Google Docs

Jun. 2024 - Aug. 2024

<u>Published</u> JavaScript-based Google Docs extension to generate live user-personalized word counts with +1K downloads

Denoising Autoencoders Research

Sept. 2022 - Oct. 2024

- Used Google Colab to create a denoising autoencoder and tuned the model reducing the MSE by 15%
- Explained the findings on the deblurring of handwritten digits from the MNIST dataset in a technical paper

AWARDS & CERTIFICATIONS

AI@ATL Hackathon: AI Safety Initiative Track Winner | Major League Hacking

Oct. 2024

- Created synthetic medical datasets and evaluated prompt injection robustness on LLMs via Claude and Gemini APIs
- Presented live demo to MLH judges achieving 1st place out of 15 teams

Machine Learning Specialization | DeepLearning.AI & Stanford University | Coursera

Jun. 2023 - Aug. 2023

• Completed 3-course track with 15+ coding assignments using PyTorch and NumPy (self-adapted from TensorFlow base)

AI & Law (with Honors) | Lund University -Coursera

Apr. 2022

• Studied the intersection of AI and the legal field in areas like intellectual property, labor law, and healthcare ethics