

Raúl Ignacio Rojas-Sillery

EXPERIENCE raul.rojas@ufl.edu | www.linkedin.com/in/raul-rojas | <https://github.com/RIROJASS> | (305)-842-8433

Break Through Tech: AI Program, Cornell University x MIT

May 2025 – April 2026

- Build ML models w/Python, Scikit-learn, & Pandas to classify/predict outcomes using IRL datasets (e.g., customer churn, fraud detection)
- Practice version control, data wrangling, & model evaluation (F1, ROC-AUC) as part of weekly lab assignments and peer code reviews
- Join AI Studio in Fall 2025—deploying ML solutions w/ industry datasets, guided by company stakeholders & faculty mentors
- Engage in 1:1 mentorship w/ ML professionals to refine technical portfolio, prep for AI internships, and develop project management skills

Northrop Grumman Mission Systems Intern, Baltimore, Maryland

May 2025 – Aug 2025

- *Classified*

Multimodal AI for Museum Collections Intern, Florida Museum of Natural History

Jan 2025 – Present

- Engineered semantic search systems, image-to-image retrieval, and visual question-answering solutions using SigLIP, HiPerGator, and other vision-language models to enhance museum collection accessibility
- Designed scalable data pipelines to handle multimodal datasets (text, image, and metadata), improving artifact retrieval speed by 4000%
- Fine-tuned SigLIP models, ensuring higher accuracy in cross-referencing artifacts across diverse cultural and historical contexts
- Designed UX for dashboard to build interactive data-recall experiences that increased digital engagement by 50%

Computer Vision AI Model Development Intern, Florida Museum of Natural History

Aug 2024 – Dec 2024

- Developed & deployed YOLO computer vision model via HiPerGator, improving feature detection by 80%, discovering 30+ ancient sites
- Designed large-scale data pipelines via ArcGIS, reducing data processing times by 60% for 10,000+ image geospatial datasets
- Presented findings at the 2025 Florida Undergraduate Research Conference & am co-authoring the resulting research paper

NASA Product Innovation Challenge (Team Leader & Winner), Blackstone LaunchPad x University of Florida

Oct 2024

- Prototyped & presented pitch deck for FIREARCHY, a real-time AI-powered app, giving actionable steps w/ sub-1% location error rates
- Ideated, engineered, and 3D printed FIREFLY companion product: a modular, one-size-fits-all air filtration system for car cabins, allowing users to breathe clean air during evacuation processes using space-station HEPA air filters

Archaeological Site 3D Modeling, Pampa La Cruz Archaeological Site @ Hunachaco, Peru

June 2024

- Created two 3D site models using drone orthophotography, AutoCAD, and Agisoft Metashape, involving 2000+ data points in cloud form showing site development over ~1500-year period
- Served as key liaison between the local and international crew, enhancing cohesion and project efficiency as the sole native Spanish-speaker of my cohort

LEADERSHIP

Society of Hispanic Professional Engineers (SHPE), National Convention Corporate Database Director

Aug 2024 – Dec 2024

- Developed only corporate database resource for SHPE National Convention, the world's largest gathering of Hispanics in STEM
- Connected 20,000+ nat'l members & 15,000+ convention attendees w/ over 400 industry-leading partners like Google, NVIDIA, Amazon
- Facilitated 1000s of life-changing opportunities and educational connections for Hispanics in STEM

Thrift Club, Vice President of External Affairs

Nov 2022 – Dec 2024

- Connected students to local community via outreach initiatives/partnerships for 4,500+ members w/ 50+ local businesses and student orgs
- Organized 38 Thrift Swaps—each averaging 92 attendees and totaling 23,000+ items donated via the PeacefulPaths non-profit
- Planned & managed 3 Thrift Galas—each averaging 22 local food, drink, and craft vendors, 154 ticket sales, 4 live music performances, and a fashion runway I styled

United Nations Association Gainesville Chapter, Vice President of External Affairs

Nov 2022 – Mar 2024

- Educated children ages 5-8 in STEM and world stewardship via project-based teaching
- Facilitated international relations w/Gainesville's Sister Cities, Duhok & Qalqilya using UNA network
- Assisted 200+ members of the homeless community through 3 semesterly food drives

SKILLS

Technical: Python, C++, JavaScript, R, TensorFlow, Pandas, NumPy, API Integration, Human-Computer Interaction, MLOps, NLP

Development, LLM & CNN Construction, ArcGIS, QGIS, Google Earth Engine, Remote Sensing & Modeling, Environmental Analysis, Data Visualization & Processing, Drone Piloting & Orthophotography, Version Control (GitHub), Agile Workflows, 3D Modeling, AutoCAD, Agisoft Metashape, Large-Scale Data Processing, Distributed Computing, Fashion Design, Sewing (Hand & Machine)

Essential: Project Management, Public Speaking, Science Communication, Storytelling, AI Ethics, Social Media Management, Event Planning, Research Methodologies, Teamwork, Adaptability, Stakeholder Relations, Interdisciplinary Collaboration, Cross-Cultural Communication, Community Engagement, UX Research

EDUCATION

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

University of Florida

May 2027

Bachelor of Science in Computer Science

Gainesville, FL

Bachelor of Arts in Anthropology

Certifications: Nvidia DLI: Deep Learning Fundamentals, UF Artificial Intelligence Fundamentals & Applications, UF Geospatial Information Analysis, NASA T2U Certificate of Achievement