JONATHAN J. LOIS ORTIZ

COMPUTER SCIENCE STUDENT |**787-463-7874** | jonathan.lois@upr.edu

OBJECTIVE

I am a junior Computer Science student at the University of Puerto Rico, passionate about **Machine Learning & Software Engineering** Seeking **internships or research roles** to apply technical skills, gain hands-on experience, and contribute to impactful projects.

RELEVANT WORK EXPERIENCE

Project Lead Software Engineer
Oct 2025 – Present | CRiiAS Titulo V, University of Puerto Rico, Río Piedras campus

Currently Leading the redesign and modernization of the CRiiAS website, transforming it from a static informational page into a fully functional digital platform for tutoring and study room reservations.

- Designed the frontend using **React, TypeScript, and CSS**, and built the backend using **Django with a PostgreSQL** database.

- Implemented a secure authentication system utilizing Google's OAuth 2.0 and administrative dashboard for data visualization, CSV exports, and room/tutoring management.

- Collaborated with CRiiAS staff to align the website's aesthetics with the center's physical facilities and artistic identity.

- Improved user experience by streamlining student registration and reservation processes, eliminating dependency on external tools like Jotform.

Academic Tutor (Computer science and Mathematics)
Jan 2025 – Present | CRiiAS Titulo V, University of Puerto Rico, Río Piedras campus

- Provide one-on-one tutoring sessions for university students in Mathematics (Introductory Mathematics through Calculus) and Computer Science (Data Structures, Statistics with Computers). Tutored over 80 students to date.

- Prepare and lead Calculus exam review sessions for groups of up to 13 students, focusing on key test topics and problem-solving strategies.

- Develop study materials and practice exercises to support student learning and exam preparation.

Software Engineer Intern

June 2025 – August 2025 | Roadeo, San Juan, Puerto Rico

Worked as a Software engineer for Roadeo, a startup company in the online marketplace industry. Contributed to full-stack **mobile development** using **Flutter, Firebase,** and **Google Cloud Services** to deliver new features and enhance existing functionality. Other responsibilities include:

- o API Integration: Implemented a blast messaging feature by working with API systems to streamline user communication within the app.

- o Cloud Function Optimization: Rewrote appointment reminder cloud functions in JavaScript, **reducing daily cloud calls by 40%** to improve efficiency and lower operational costs.

- o Integrated **Google Calendar API** via Google Cloud Functions to enable seamless scheduling and event synchronization within the app.

Research Assistant – Atmospheric and Aerosol Science Lab

March 2025 - June 2025 | ACAR Lab, University of Puerto Rico, Río Piedras Campus

Worked as a research assistant for ACAR Lab. Helped with data visualization code (**Pandas / Matplotlib**) for atmospheric research and learned about machine learning topics related to atmospheric research. Other responsibilities include.

- o Analize AOD and PM10 Data from CSJ sensors, creating plots and describing trends using Python's NumPy, Matplotlib and Pandas.

- o Automated web scraping and data pipeline: Developed a Python script to scrape, download, and convert air properties data files from a remote server, leveraging requests, BeautifulSoup, and pandas to transform .txt files into structured .csv format for analysis, with organized local storage management.

PERSONAL PROJECTS

NBA Win Percentage Prediction Model (Python)

- o Built a **Machine Learning Model** using Random Forest Regressor (**Sklearn**) to predict NBA team win percentage based on performance metrics.

- o Explored statistical relationships between team metrics and win probability, applying data-driven insights to sports analytics research.

- o Used **Pandas / NumPy** to preprocess and clean data for predictive accuracy.

- o Evaluated model performance using R^2 score & RMSE, achieving **95%** accuracy.

Cloud Hosted Multiplayer Server (Oracle Cloud, Linux, Java)

- o Deployed and maintained a cloud-hosted Java server on Oracle Cloud (Ubuntu Linux)

- o Designed and debugged VCN networking (subnets, route tables, internet gateway, security rules)

- o Managed Java runtime compatibility (Java 17 → Java 21) during platform upgrades

- o Performed safe in-place upgrades across application versions without data loss

- o Maintain server security reading reported logs and testing server possible vulnerabilities.

EDUCATION

Aug 2023 – May 2027

Candidate to Bachelors in Computer Science
University of Puerto Rico, Río Piedras Campus

Minor: **Information Systems and Business Intelligence**

Relevant Coursework: **Data Structures, Databases, Artificial Intelligence, Cybersecurity, Big Data Applications, Business Intelligence, Statistics with Computers, Machine Learning Tools.**

Organizations: **AECC (Computer Science Student Organization)**

Major GPA: 3.7