

Lance Penaflor

850-686-2389 | penaflor.lance11@gmail.com | LinkedIn | Portfolio | GitHub

EDUCATION

University of West Florida

Bachelor of Science in Computer Science; Minor in Statistics; Certificate in Data Science

Pensacola, FL

May 2027

EXPERIENCE

Data Systems Engineer Intern *Andrews Institute*

Sep. 2025 – May. 2026

- **Engineered R applications** for athlete performance and injury analytics, transforming raw data into interactive dashboards and **data storytelling visuals** for coaches and medical staff.
- **Built Power BI dashboards** summarizing athlete statistics, recovery trends, and performance metrics from **SQL databases**, supporting **cross-platform analytics** and **performance tracking**.
- **Designed optimized SQL schema in Azure SQL** to ensure scalability and real-time reporting.
- **Streamlined automated data pipelines** for real-time data collection and visualization, reducing manual entry time and enabling consistent analytics across platforms.
- **Implemented role-based access controls** to protect sensitive athlete data, maintaining full HIPAA compliance while improving data accessibility for analysis.

Undergraduate Teaching Assistant *University of West Florida*

Jan. 2025 – Jun. 2025

- **Supported 120+ students** in C++ Algorithms and Statistics courses, strengthening their understanding of analytical thinking and problem-solving.
- **Introduced Python-based labs and visualization exercises**, replacing calculator workflows to align coursework with modern data analytics practices.
- **Co-produced accessible, interactive course materials** with full compliance to university disability and accessibility mandates.

Machine Learning & Data Analytics Research Assistant *UWF CSDA Lab*

Oct. 2024 – Oct. 2025

- **Implemented Python data pipeline** for large-scale mass spectrometry datasets (**10,000+ samples**) using **Pandas, scikit-learn, NumPy, and Matplotlib**, achieving **75% accuracy and 80% specificity**.
- **Processed and analyzed complex, high-dimensional data**, demonstrating ability to digest and structure large datasets for statistical modeling and performance analytics.
- **Reduced data dimensionality by 99.8%** with wavelet transforms and PCA for computational efficiency.
- **Delivered data storytelling reports and visualizations** summarizing model metrics (accuracy, precision, recall, F1) to guide research decisions and algorithm selection.

Data Science Educator *UWF CSDA Lab*

Aug. 2024 – Present

- **Founded a 35+ member Python and Data Science learning community**, mentoring peers in analytics, visualization, and communication.
- **Created 10+ interactive Jupyter notebooks** covering Python, statistics, and machine learning concepts for beginner audiences.
- **Led weekly workshops on data visualization and storytelling** using Python, improving engagement.

PROJECTS

Music & Fashion Analysis (In Progress) | *Python, Pandas, Scikit-learn, ETL*

- **Built ETL pipeline on 3 Kaggle datasets**, cleaning duplicates, removing nulls, and filtering using **Pandas**.
- **Feature engineering** by integrated **LastFM API** to enrich Spotify data with genre tags for all unique songs.
- **Performed Exploratory Data Analysis on data using matplotlib** to spot trends and gain insight on data.

Data Science Learning Website | *React, Node.js, TypeScript, Express*

- **Deployed browser-based coding + AI tutor platform** with **50+ users** using **React** and **Express**.
- **Directed a 3-person full-stack team** to deploy and maintain a browser-based platform using **React/Express**, implementing **CI/CD via Vercel/GitHub** for stability.

TECHNICAL SKILLS

Programming: Python, SQL, R, C++, JavaScript, TypeScript, Java

Data Tools: NumPy, Pandas (ETL, EDA), Scikit-learn, PyTorch, TensorFlow, Matplotlib, R Shiny, Power BI

Analytics Concepts: Data Storytelling, Performance Tracking, Machine Learning, Statistics, Visualization

Web & Systems: React, Node.js, Express, Docker, Git, Agile Development, REST API, Azure SQL, MySQL