

# VALENTINA TORRES DA SILVA

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## EDUCATION

### Fairleigh Dickinson University

Bachelor of Science in Computer Science, Minor in Mathematics

Tearneck, New Jersey

Anticipated May 2026

## TECHNICAL STACK

**Programming Languages:** Python, R, Java, JavaScript, Bash

**Frameworks & Libraries:** Scikit-Learn, TensorFlow, PyTorch, Next.js, TailwindCSS, FastAPI, Pandas, NumPy, Matplotlib, Seaborn

**Databases & Cloud Platforms:** AWS (SageMaker, Lambda, API Gateway, CloudWatch, S3), SQL, PostgreSQL (via Supabase)

**Data Skills:** NLP, Supervised Machine Learning (Regression & Classification), Retrieval-Augmented Generation (RAG), Tableau

**Software Development/Testing:** API Integration, Front-End Development with Next.js, Bash Scripting for Automation and Testing

**Version Control, DevOps & CI/CD:** Linux, VS Code, Cursor, GitHub Copilot, Git

**Languages:** English, Spanish, Portuguese

## WORK EXPERIENCE

### Women in Data Science (WiDS) Worldwide

Data Scientist

Remote

September 2025 - Present

- Developed an interactive data science notebook integrating CDC's Social Vulnerability Index via API to support the WiDS University Datathon x WatchDuty challenge, enabling real-time analysis of wildfire impact and contributing to a global competition.
- Engineered a machine learning model and weather-data API pipeline to accelerate wildfire impact forecasting for the 2025 Global Datathon, advancing equitable disaster response and earning contributor recognition.
- Designed a forthcoming workshop in Baghdad, Iraq to mentor young women on building end-to-end data science projects, expanding access to AI education in underrepresented regions.
- Conducting active research for the 2026 WiDS Global and University Datathons to evaluate globally relevant datasets, including misinformation trends and water usage, informing challenge design for a diverse international demographic.

### Fairleigh Dickinson University

Computer & Robotics Lab Assistant

Tearneck, New Jersey

August 2023 - Present

- Improved NAO humanoid AI robot task accuracy by configuring custom Python scripts for multi-step automation workflows.
- Solved 8+ technical issues and applied new AI and robotics methods to improve experiment speed and robot performance.
- Reduced support request resolution time by 30% by diagnosing and resolving software, hardware, and login issues for 50+ faculty and students weekly.

## PROJECTS

### Long Run | Battle of the Brains "Best Technology Solution" Winner | Team Leader

October 2024

- Secured 3rd place out of 30+ teams by delivering a high-performance React.js + Next.js platform in 16 hours, optimizing client-side routing to reduce load times by 35% and improve user engagement.
- Led 3-member team to build a multi-page event platform with video, scheduling, and eco-materials features.

### RAG-Enabled AI-Powered Legal Contract Data Extraction | FDU + RSG Media/ Rightsline

August 2024 - November 2024

- Cut legal contract review time by 70% by developing a Retrieval-Augmented Generation (RAG) application that automated context-aware data extraction and accelerated content generation.
- Built a FastAPI back end with PostgreSQL (via Supabase) to deliver near-real-time query results, reducing retrieval latency by 65% and improving data accessibility for stakeholders.
- Improved AI accuracy by 90% and delivery speed by 50% using OpenAI API, prompt engineering, and AI tools (Cursor).

### Detection of AI-Generated Social Bots on Twitter

April 2025- May 2025

- Designed an end-to-end pipeline across classical ML, deep learning, and clustering: preprocessing (**English-tweet filtering ≥70%, normalization**), feature engineering (URL/hashtag/mention counts, profile signals, account age, friends-to-followers), scaling, and consistent splits (70/15/15 for DL; 80/20 for ML).
- Benchmarked KNN (0.86), Logistic Regression (0.87), SVM (0.87), Random Forest (0.86), Bi-LSTM (0.87), and PCA+KMeans clustering (0.88), confirming DL outperformed classical ML on precision/recall/F1 while clustering delivered the top accuracy without labels.

## AWARDS

### eBay Innovation Scholarship – \$5,000 | Mar 2024

- One of only 4 students selected out of hundreds for an essay demonstrating the measurable community impact of a completed technology project.