

VALENTINA TORRES DA SILVA

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EDUCATION

Fairleigh Dickinson University

Bachelor of Science in Computer Science, Minor in Mathematics, GPA: 3.96

Teaneck, New Jersey

Anticipated May 2026

TECHNICAL STACK

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

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

Databases: MySQL, PostgreSQL (via Supabase)

Cloud Platforms/LLM's: AWS (SageMaker, EC2s, Lambda, API Gateway, CloudWatch, S3), LLM APIs

Data Skills: NLP, Supervised Machine Learning (Regression & Classification), Unsupervised Learning (K-Means), Retrieval-Augmented Generation (RAG), Ensemble Models

Software Development: RESTful APIs, Front-End Development with Next.js

Testing: Model Evaluation (F1, AUC), Model Validation/Deployment, Performance Benchmarks

Performance Optimization: Improving ML model accuracy

DevOps & CI/CD: Linux, Docker, VS Code, Cursor, GitHub Copilot

Project Management & Collaboration: Slack, Stakeholder Communication

Version Control: Git, Github

Languages: English, Spanish, Portuguese

WORK EXPERIENCE

Women in Data Science (WiDS) Worldwide

Remote

Data Scientist

September 2025 - Present

- Developed an interactive data science [notebook](#) integrating CDC's Social Vulnerability Index via API to support WiDS.
- Engineered and launched** the [2026 WiDS Global Datathon](#) on wildfire risk, developing survival-analysis targets and robust evaluation metrics to support equitable, decision-relevant disaster response modeling.
- Designed and led** a [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 2027 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

Teaneck, New Jersey

Researcher

December 2025 - Present

- Conducting NOAA-funded research integrating Landsat and VIIRS data to model sub-pixel water fractions and generate high-resolution river masks for narrow channels.
- Training** multispectral classifiers to distinguish open from ice-covered river water, enhancing early detection of freeze-up and break-up conditions.
- Building operational remote-sensing pipelines that support climate-risk assessment for communities vulnerable to ice-jam flooding.

Computer Lab Assistant

August 2023 - Present

- Reduced support request resolution time by 30% by diagnosing and resolving software, hardware, and login issues for 50+ faculty and students weekly.
- Maintained and updated lab equipment, ensuring 100% availability and operational efficiency during peak usage periods.
- Delivered technical assistance and user guidance that improved end-user satisfaction scores by 25%.

Robotics Lab Assistant

August 2024 - March 2025

- Improved NAO humanoid AI robot task accuracy by configuring custom Python scripts for multi-step automation workflows.
- Resolved 8+ technical challenges by designing creative code-based solutions, accelerating lab experiment completion and ensuring operational readiness for research demonstrations.
- Researched and implemented emerging AI and robotics techniques to optimize task execution speed and robot adaptability.

Rio Country Club

Rio de Janeiro, Brazil

Tennis Coach

December 2021 - March 2022

- Increased athlete performance through personalized training programs tailored to skill levels and competitive goals.
- Coached and mentored 50+ youth athletes, fostering technical skills, mental resilience, and sportsmanship, resulting in measurable growth in competitive performance.

- Earned consistent positive feedback from supervisors for communication, leadership, and motivation skills, contributing to an increase in training program retention.

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.
- Directed a 3-member dev team to design and deploy a multi-page event platform with embedded video, interactive scheduling, and eco-materials showcase, meeting competition criteria under tight deadlines.

[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.
- Enhanced AI output accuracy by 90% through OpenAI API integration with prompt engineering, resolving critical gaps in contract processing workflows.
- Accelerated delivery by 50% using AI-assisted development tools (GitHub Copilot, Cursor AI, Replit) for rapid prototyping, automated debugging, and streamlined deployment.

[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.

[News Headline Classification with AWS SageMaker](#) *August 2025*

- Fine-tuned DistilBERT on headline dataset using PyTorch + Hugging Face, achieving 96% validation accuracy (loss 0.118).
- Deployed a real-time inference API with SageMaker, Lambda, and API Gateway, delivering predictions in ~1.5s latency.
- Integrated CloudWatch monitoring and S3 model storage to ensure production-ready reliability and cost control.

VOLUNTEER SERVICE/LEADERSHIP

Ready to Golf

Volunteer

Teaneck, New Jersey

August 2022 - May 2024

- Enhanced quality of life for Parkinson's patients by organizing structured physical activity sessions and fostering social engagement, resulting in increased participation rates by 30%.
- Developed supportive player relationships that encouraged consistency and improved motor skill performance over 21 months of involvement.

Association for Computing Machinery (ACM)

Member

Teaneck, New Jersey

September 2022 - Present

- Actively participated in peer-led AI, machine learning, and programming initiatives to strengthen technical and collaborative skills.

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.

GHCSE Directors Discretionary Fund Scholarship | Spring 2025

- Recognized for exceptional academic performance and contribution to the computing community.

NCAA Division-1 Student Athlete Awards | NEC All-Rookie Team 2022, Second Team All-Conference 2023, NEC Champion 2025

- Honored for consistent athletic excellence while balancing full academic load, demonstrating resilience, leadership, and discipline transferable to technical roles.

COMPETITIONS & DATATHON

Bryan Muñoz, María Cruz, **Valentina Torres da Silva**, Yao Yan, Gabe Schine, WiDS Worldwide, and WatchDuty . WiDS Global Datathon 2026. https://kaggle.com/competitions/WiDSWorldWide_GlobalDathon26, 2026. Kaggle.

CERTIFICATES

Stanford Online

[*Supervised Machine Learning: Regression and Classification*](#)

August 2025

IBM

[*Introduction to Artificial Intelligence*](#)

June 2024