

Javier Pozo Miranda

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Education

The Pennsylvania State University, University Park, PA May 2025
Bachelor of Science in Computer Science Minor in Applied Mathematics Dean's List Spring 2022 – Fall 2023

Work Experience

Central Reach, Generative AI Engineer Intern May 2024 - August 2024
Internship

- Designed and deployed Retrieval-Augmented Generation (RAG) pipelines, improving text and data response accuracy by 25% for Applied Behavior Analysis (ABA) applications.
- Streamlined data ingestion workflows using n8n, reducing dataset search times by 40% and accelerating model deployment.
- Launched the NoteGuard project using Shakudo suite, driving over \$40M in revenue and establishing the company's AI division.

Nittany AI Advance, Machine Learning Engineer/Team Leader January 2024 - December 2024
Internship

- Led the development of a proof-of-concept machine learning algorithm to predict event success at the Bryce Jordan Center (BJC), achieving 87% prediction accuracy.
- Ingested and processed a large dataset comprising over 6.3 million data points.
- Designed and implemented an MVP with a user-friendly interface, leveraging machine learning models such as Random Forest, XGBoost, and Linear Regression to provide seamless input/output predictions.

Programming Projects

Highlight-Ai, Personal Project April 2025 – Present
Full-Stack Developer & AI Engineer

- Built an AI-powered platform to convert full-length sports videos into highlight reels using audio-based excitement detection and intelligent video segmentation.
- Integrated TensorFlow's YAMNet model to detect moments of high crowd intensity and used MoviePy to automate video trimming, merging, and rendering.

PSU What To Eat, Personal Project April 2025 – Present
ML/NLP Developer & Backend Engineer

- Designed a personalized nutrition recommendation system for PSU students based on dining menu data, health goals, and OpenAI-powered dietary insights.
- Built a Flask backend to manage .vitae user profiles, perform automated daily scraping of PSU dining menus.

Manim Neural Network Visualizer, Personal Project August 2024 – December 2024
Animation Developer

- Developed a Python library using Manim to generate animations of neural network architectures, aiding in the educational visualization of AI concepts.

Technical Expertise & Personal Interests

Programming Languages: Python, Java, C, TypeScript, PostgreSQL

Software & Tools: AWS (Lambda, S3, EC2), Git, Docker, Jupyter Notebooks, LaTeX, Power BI, Figma, Flask, TensorFlow, PyTorch, OpenCV, Scikit-learn, FastAPI, Ngrok, Bitbucket, JIRA

Development Methodologies: Agile, Scrum, XP Programming

Machine Learning & AI: Model Fine-Tuning/Training, Realtime Inference, NLP, Pose Estimation, Optical Character Recognition, Data Annotation, Model Evaluation, Explainable AI (XAI)

Technical Competencies: Cloud Computing, Audio & Video Processing, Frontend Engineering, Security-Aware Development, Low-Level Programming

Languages: Spanish (Native), English (Fluent)

Personal Interests: AI for Social Good, Sound Engineering, Philosophy of Tech, Journaling Systems, Game Development, AI Ethics, Open Source Contributions

Awards, Certifications & Publications

HenHacks – SafeCall March 2025
Hackathon Winner

Developed an AI-powered safety tool that enables real-time, dynamic voice interaction for users in high-risk situations.

United Nations Geneva & Beyond Lab March 2025
The Beyond Magazine, Issue 01

Published a feature article titled "AI's Impact on Our Planet, Jobs & Democracies" in collaboration with United Nations Geneva, exploring the ethical, economic, and democratic implications of artificial intelligence.

Keynote Speaker, The Global Impact Forum (TGIF) 2024 September 2024
Nittany AI Student Society Representative

Presented on the transformative potential of AI at a collaborative event by Global Silicon Valley (GSV).

Electrical Engineering & Computer Science Mentor August 2023 – January 2025
Peer Mentor

Advised over 25 undergraduate students on aligning coursework with long-term career goals, improving retention and performance.