Francisco Arriaga

fran.arrp@gmail.com 915-291-0320 4600 Alabama St, El Paso TX 79930
franarriaga.vercel.app linkedin.com/in/francisco-arriaga-pazos github.com/Blistt

Summary

Machine Learning/AI Engineer specialized in deep learning and computer vision. My work has focused primarily in generative modeling and recommender systems. A mixed background in mathematics, psychology, and computer science allows me to approach problems with technical rigor without foregoing explainability. I leverage years of experience as an academic researcher as well as a Machine Learning engineer and Statistical Research Analyst for industry.

Technical Skills

Languages	**Technologies**	**Concepts**
Python	PyTorch & Tensorflow	Deep Learning
SQL	Numpy & Pandas	Computer Vision
Java	OpenCV & Sci-Kit learn	Recommender Systems
R	Docker	Artificial Intelligence
JavaScript	Next Js	Large Language Models (LLMs)

Industry Experience

MediTrak Life, Inc. Dec 2023 – Present
Machine Learning Engineer *West Lafayette, IN (remote)*

- Lead the development of the ML back end of a system that helps users regulate blood pressure through behavioral recommendations derived from XGBoost regressors.
- Reduced error by 8% over state-of-the-art through augmentations and transfer learning to personalize the recommender algorithm to each user.

El Paso Community College Jan 2019 – Dec 2023
Statistical Research Analyst *El Paso, TX*

- Brought in over $5M of grant funds by providing statistical evidence of advising program performance.
- Maintained and queried relational database of student academic data for over 30,000 students. (SQL)
- Established a data pipeline to automatize reporting processes, reducing over head by over 200%.

Research Experience

Graduate Research Assistant | *PyTorch, TensorFlow, OpenCV, SciKit Learn, Docker, Numpy*

- Designed and implemented a video frame interpolator using Generative Adversarial Networks and autoencoders (Generative Deep Learning - AI).
- Extracted dataset of over 800k triplets (sequence of 3 consecutive frames) directly from scrapped videos using Shot-Detection algorithms.
- Implemented an image retrieval system using pre-trained VGG-19 embeddings.

Undergraduate Research Assistant | *LLMs, Java, Python, Pandas*

- Implemented a tv-show and movies recommender system integrating personality scores with an accuracy of 87%.
- Created databases and established pipelines for 26 million ratings from over 470,000 users.
- Implemented a language-based recommender system using a classical vector space model and pre-trained LLM embeddings.

Education

MS in Artificial Intelligence University of Texas at El Paso
BS in Mathematics & Psychology University of Texas at El Paso