Francisco Arriaga

fran.arrp@gmail.com

J 915-303-0126 4500 Alabama St, El Paso TX 79930

franarriaga.vercel.app

Applying for

Machine Learning Engineer

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

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

Industry Experience

MediTrak Life. Inc.

Dec 2023 - Present

West Lafayette, IN (remote)

Machine Learning Engineer

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

El Paso Community College

Jan 2019 - Present

Statistical Research Analyst

El Paso, TX

- Brought in over \$5M of grant funds by providing statistical evidence of advising program performance.

 Maintained and grantianal database of students academic data for over 20,000 students. (SQL)

 The statistical evidents are described as a student academic data for over 20,000 students.
- 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 2D animation inbetweener using Generative Adversarial Networks and autoencoders (Generative Deep Learning Al).
- 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.
- 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