DAVID MACIAS

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PROFILE

Versatile data professional with hands-on experience in data engineering, analytics, and machine learning. In my current role, I've been responsible for the full data workflow—from building pipelines and transforming data to developing models and delivering insights—effectively functioning as a data engineer, analyst, and scientist in one. I'm driven by solving real problems with scalable, data-driven solutions, and I bring a strong background in mathematics, statistics, and numerical analysis.

EXPERIENCE

Data Analyst El Paso County, El Paso, TX 04/2024 - Present

- Used LLMs to analyze and summarize hundreds of open-ended question employee satisfaction surveys to generate keyword attributes.
- Led the development data analytics and data science accessibility across departments.
- Completed ETL from various sources, along with data wrangling to make data analysis functional
- Increased data accessibility for non-technical staff
- Utilized Web APIs to improve training datasets
- Used AI and Machine Learning methods to forecast budgeting needs

Graduate Researcher New Mexico State University, Las Cruces, NM 02/2022 - 05/2024

- Managed data cleaning, visualization, and custom model development across diverse datasets, focusing on algorithmic solutions for complex scenarios.
- Utilized advanced modeling techniques to select features, build classifiers, and optimize performance metrics, contributing to innovative research initiatives.
- Developed and implemented various machine learning algorithms using Python and libraries scikit-learn and TensorFlow to achieve a successful predictive model.
- Created visualization and reports using PowerBI for dashboarding.
- Evaluated the performance of the classification model using metrics such as accuracy, precision, recall, and F1-score.

EDUCATION

M.S. Data Analytics New Mexico State University 2022-2024

- Graduated summa cum laude - 3.7+ GPA
- Prominent coursework: **Machine Learning for Algorithm Development**
- Led research team to develop and deploy predictive model for astronomical object classification
- Completed time series analysis to predict drought and precipitation with 95% accuracy.

B.S. Computational Physics University of Texas at El Paso 2016-2020

- Prominent coursework: **Numerical Analysis, Mathematical Methods, Computational Modeling**

PROJECTS

AI Large Language Model Survey Analysis

- Created an end-to-end pipeline analyzing surveys using a large language model to extract sentiment and identify positive/negative keywords.
- Applied NLP techniques, keyword extraction, classification, and sentiment analysis to derive trends from openended responses.

Driving Telematics Analysis and Signal Processing

- Processed raw phone sensor data (magnetometer, accelerometer, gyroscope, Euler angles) to derive usable driver behavior features.
- Modeled and predicted risky driving behaviors using XGBoost and other machine learning methods.
- Developed risk and safety scores for pricing strategies in insurance modeling.

Tech Stack & Skills

Data Storage: Azure, databricks, MySQL, SQL

Data Visualization: Tableau, PowerBI

Data Analysis: Excel, Python, R, SPSS, Apache Spark

Notebooks: Deepnote, Jupyter

Libraries: scikit-learn, tensorflow, sci-py, numpy, pandas, matplotlib, pytorch, SKLearn, XGBoost

Statistical Analysis: Regression, Time-series forecasting, Signal Processing, A/B Testing, Feature Scaling, Machine Learning, Analysis Pipelines, Data Processing, Data Science