MAMESA EL

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DATA SCIENTIST WITH AI/ML EXPERTISE

Accomplished Data Scientist with a Master's from UC Berkeley, specializing in leveraging advanced machine learning techniques to solve complex data problems. Proficient in Python, TensorFlow, PyTorch, and AWS SageMaker, with significant experience applying generative AI technologies such as RAG and LLMs via LangChain to real-world challenges. Expertise in developing NLP-based solutions and predictive analytics frameworks. Eager to further enhance data-driven decision-making processes and innovation in a dedicated Data Scientist role.

PROFESSIONAL EXPERIENCE

Data Scientist, Volt Lab Inc. | April, 2023 - February, 2024

- Developed and managed machine learning algorithms using Scikit-Learn, NLP, and BERT for a spam detection system, achieving an 80% F1 score through rigorous statistical analysis and model optimization.
- Designed and optimized SMS data pipelines using Python and SQL, integrating preprocessing, feature engineering, and model selection techniques to achieve a 30% reduction in processing time.
- Maintained machine learning model lifecycle in AWS SageMaker, deploying models, managing batch training, and securing endpoint access.
- Showcased strong written communication by authoring concise reports and presenting complex data insights to non-technical teams, leading to significant reductions in client-generated spam.

Data Analyst, Western Washington University | Sept 2019 - June, 2021

- Analyzed spectroscopic data from 12 galaxy clusters using Python and Astropy to extract key properties, applying anomaly detection methods to target extreme luminosity variations.
- Engineered scripts to efficiently analyze and visualize over 200,000 galaxies, developing practical ML solutions that included properties and clustering analysis.

PROJECT

- **Flight Price Delay**: Conducted comprehensive data analysis and statistical modeling to enhance United Airlines' flight delay prediction model, achieving a 77.2% F1 score through meticulous XGBoost evaluation and bootstrapping.
- **Eye Robot:** Developed a Convolutional Neural Network (CNN) for real-time indoor navigation aid for the visually impaired, leveraging AWS EC2 and a 300,000+ images dataset. Integrated with an iOS app, this solution combines computer vision, text-to-speech, and sensor fusion technology to enhance accessibility.

EDUCATION

Master of information and Data Science, University of California, Berkeley
Bachelor of Science in Physics, Western Washington University

SKILLS

- **Programming Languages:** Python, R, SQL
- **Frameworks & Packages:** TensorFlow, PyTorch, LangChain, Scikit-Learn;
- **Data Visualization**: Tableau, Seaborn
- **Databases:** PostgreSQL, Redis
- **Platforms & Tools:** Databricks, AWS SageMaker, Spark, Hadoop
- **Containerization & Orchestration:** Docker, Azure Kubernetes
- **Version Control:** Git
- **Advanced Techniques:** Prompted Engineering, Retrieval Augmented Generation (RAG)