

# Mamesa El

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## Professional Profile

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As a UC Berkeley Data Science Master's graduate, I have cultivated a solid foundation in programming, mathematics, and machine learning, closely aligning with the skill set of a Machine Learning Engineer. My tenure as a Data Scientist at Volt has sharpened my analytical abilities, particularly in tackling physics-centric applications. This blend of advanced academic training and practical experience in data-driven environments positions me to make substantial contributions as a Machine Learning Engineer, especially in dynamic and data-intensive projects.

## Work Experience

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**Data Scientist** April 2023 – Present  
*Volt* *Tulsa, Oklahoma*

- Trained and managed a Scikit-Learn, NLP, and BERT-based spam detection system, achieving an 80% F1 score through extensive statistical analysis for improved accuracy.
- Developed SMS data pipelines, encompassing tasks such as data preprocessing, feature engineering, and model selection, to optimize model flow efficiency.
- Managed machine learning model lifecycles, including AWS SageMaker deployment, enhancing cloud deployment experience.

**Data Analyst** Sep 2019- June 2021  
*Department of Physics and Astronomy, Western Washington University* *Bellingham, WA*

- Collaboratively analyzed spectroscopic data from 12 galaxy clusters using Python and Astropy to extract key properties.
- Implemented anomaly detection models for galaxy mass, luminosity, and density, strategically targeting extreme luminosity variations.
- Developed a script to efficiently analyze and visualize over 200,000 galaxies, showcasing practical ML solutions development.

## Projects

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### Hugging Face Restful API Deployment:

- Deployed a machine learning model using Hugging Face transformers in Microsoft Azure Kubernetes, with a REST APIs.
- Utilized Prometheus/Grafana for performance monitoring and optimization, focusing on key metrics like resource utilization.
- Achieved less than 10 microsecond latency and over 100 requests per second throughput.

## Skills

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**Programming:** Python, SQL, Bash (Linux Shell Scripting)

**Frameworks/Packages:** TensorFlow, Pytorch, LangChain, SK-Learn, Machine Learning

**Platforms and Tools:** Databricks, AWS SageMaker, Spark, Hadoop

**Containerization/Orchestration:** Docker, Microsoft Azure Kubernetes

**Version Control:** Git

## Education

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**University of California, Berkeley** – Master of Information and Data Science December 2023

Relevant Courses: Machine Learning at Scale, Machine Learning System Engineering, Applied Machine Learning, Statistics for Data Science, Fundamental of Data Engineering

**Western Washington University** – Bachelor of Science in Physics

June 2021