Aldo Santiago Márquez

Machine Learning Engineer | Data Scientist

Puebla, Mexico
+52 921 285 4514
•aldo.santiago.marquez@outlook.com
linkedin.com/in/aldo-santiago-marquez-dc

Professional Summary

Data professional with experience in machine learning, statistical analysis, and data-driven product support. Strong Python background and hands-on work with supervised learning, deep learning, and data visualization. Comfortable working end-to-end: from data cleaning and feature engineering to model evaluation, deployment-ready code, and clear communication of results to both technical and non-technical stakeholders.

Experience

Machine Learning on Simulation Data – Research Project *Feb 2024 – Sep 2025*
Benemérita Universidad Autónoma de Puebla (BUAP) • Puebla, Mexico

- Built supervised ML models on large-scale simulation datasets, focusing on robust classification and reproducible workflows.
- Implemented feature engineering pipelines (selection, scaling, transformation) to improve model performance and stability.
- Evaluated models with appropriate metrics (e.g., accuracy, ROC-AUC, confusion matrix) and iterated on hyperparameters.
- Documented experiments, assumptions, and results to facilitate collaboration and future extensions of the project.

Remote Operator – International Scientific Collaboration *Jan 2023 – Sep 2025*
Remote

- Monitored real-time performance of complex technical systems to ensure continuous, safe, and reliable operation.
- Performed data quality checks and helped calibrate instruments to maintain accurate and consistent measurements.
- Logged incidents in a structured way, coordinated troubleshooting, and reported system status to international teams.
- Strengthened skills in remote collaboration, technical communication, and operating in distributed, multicultural environments.

Academic Data Analysis Project *Jan 2023 – Jun 2023*
Benemérita Universidad Autónoma de Puebla (BUAP) • Puebla, Mexico

- Performed exploratory and statistical analysis of experimental data using Python to validate hypotheses and support findings.
- Cleaned and structured raw datasets, adding validation checks against benchmarks to ensure data consistency and reliability.
- Contributed to simulations and documentation, helping standardize analysis steps for other collaborators.

Selected ML & Data Projects

- Image classification using CNNs on MNIST and CIFAR-10, focusing on experimentation with architectures, regularization and evaluation — TensorFlow, Keras.
- Medical imaging classification for pneumonia detection from chest X-rays, emphasizing model performance and basic interpretability — CNNs, Keras.
- Automatic text generation with Transformer-based models for sequence modeling and experimentation in NLP — Python, HuggingFace.
- Financial time-series analysis and forecasting to study trends, seasonality and volatility — ARIMA, Prophet.

Core Technical Skills

Programming & Data
Python (OOP), data wrangling, data cleaning and preprocessing, basic SQL (SELECT, simple JOINs), NumPy, Pandas

Machine Learning & Deep Learning
Supervised learning (regression, classification, model evaluation) with Scikit-learn; deep learning with TensorFlow & Keras (CNNs, RNNs, basic Transformers); time series forecasting with ARIMA and Prophet

LLMs & Generative AI
OpenAI, Google Gemini, DeepSeek for text generation, summarization and experimentation; HuggingFace Transformers for NLP tasks (text generation, classification, sequence modeling)

Analytics & Visualization
Exploratory data analysis, descriptive statistics, Seaborn, Matplotlib, introductory dashboards in Power BI

Tools & Ways of Working
Git & GitHub, Docker, Jupyter Notebook, VS Code, Linux; Spanish (native), English (B2)

Education

Benemérita Universidad Autónoma de Puebla (BUAP) *Puebla, Mexico*
Bachelor's in Physics

Courses & Certifications

Machine Learning Specialization – Coursera (2024)
Data Science Diploma – BUAP (2024)
Data Science Fundamentals with Python and SQL (2024)
Alura Latam – Data & Development Track (2025). *Includes: Power BI for Data Analysis; Programming and Algorithms; Web Development (HTML, CSS, JavaScript); Productivity and Project Management.*