Alejandro Vasquez

Albuquerque, NM | Email | LinkedIn | GitHub

Summary

Analytical and adaptable data professional with a strong foundation in data analysis, predictive modeling, and data-driven operations. Passionate about transforming complex data into actionable insights to solve business challenges. Eager to apply skills in Python, SQL, and machine learning and contribute to a forward-thinking team.

Skills

Programming Languages & Libraries: Python (Pandas, NumPy, Scikit-Learn, Matplotlib, TensorFlow), SQL (PostgreSQL, SQLite3, Google BigQuery), JSON, RESTful API, MATLAB

Data Science & Analytics: Machine Learning Algorithms, Predictive Analytics & Forecasting, Data Modeling, Data Visualization (Power BI, Tableau, Seaborn, Plotly), Statistical Analysis

Data Management & Tools: Database Querying, ETL, Data Wrangling / Cleaning, Data Quality Assurance, Docker, GitHub, Excel.

Business & Methodologies: Agile Methodologies, Project Management, Cross-functional Communication, HIPAA Compliance

Technical Portfolio

Deep Dive Data Science Bootcamp, Central New Mexico Community College, Completed 12-week 400+ hours of intensive, hands-on AI and machine learning training, mastering Python, SQL, ML, NLP, AI, and cloud computing. This heavily project-based curriculum provided practical experience in critical thinking, data analysis, and the full data science workflow, from problem definition to deploying solutions with various machine learning algorithms.

Capstone: ABQ Bus Data Reliability Analysis | Google Cloud PostgreSQL, Python, Power BI

- Spearheaded the creation and management of a Google Cloud PostgreSQL database to store and analyze real-time ABQ bus data.
- Focused on visualizing bus routes, identifying dropped service locations, and developing predictive models for bus mapping reliability to inform public transportation improvements.

SQL Database Analysis & Modeling | SQL, Python, SQLite3, Pandas, Google BigQuery

- Designed and executed SQL queries on the Chinook sample database to analyze music store data (e.g., customer demographics, sales trends).
- Performed advanced data retrieval and manipulation using Google BigQuery on the NYC Trees dataset, demonstrating proficiency in cloud-based data warehousing.
- Explored data relationships through table joins and outlined potential modeling approaches (e.g., predicting sales in Chinook, or modeling tree characteristics in NYC Trees).

Predicting Customer Transactions | Python, Scikit-learn, NumPy, Pandas, Matplotlib

- Developed a binary classification model to predict customer transaction success.
- Addressed class imbalance in a large, anonymized dataset (9.2 million elements) through extensive data cleaning.
- Achieved an overall accuracy of ~76% and significantly improved recall for successful transactions to ~75%.

Models for Predicting Real Estate Home Prices | Python, Scikit-learn, NumPy, Pandas, Seaborn

- Created regression models (Linear, Ridge, and Lasso) to predict home prices.
- Cleaned and prepared a dataset and analyzed correlations to select optimal predictors.
- Achieved a Root Mean Squared Percentage Error (RMSPE) of approximately 10.6% with Linear Regression

Professional Experience

Operations Lead – Schwazze, Albuquerque, NM - 2021 – 2025

- Led data-driven R&D initiatives, utilizing Excel-based analytical insights to reduce cultivation costs by 70%.
- Analyzed cultivation and market data to optimize workflows, improving the operations' success rate from 75% to 95%.
- Implemented data-backed efficiency standards, reducing operational downtime by 60% and enhancing overall performance.
- Developed and deployed data-informed Integrated Pest Management (IPM) strategies, leveraging historical cultivation data and statistical analysis to enhance crop quality and prevent issues.
- Facilitated cross-functional communication to foster data-driven collaboration and streamline information.

Operations Lead – New Mexico Hemp Company, Belen, NM - 2019 – 2021

- Directed data-driven cultivation strategies, increasing yields by 30%.
- Prepared and maintained critical financial and operational reports using Excel.

Computer Support Specialist – UNM Department of Psychiatry, Albuquerque, NM - 2016 – 2019

- Ensured strict data privacy and patient confidentiality by applying HIPAA practices.
- Provided comprehensive multi-platform technical support (PC, Mac, Linux, mobile)

Education

Associate of Applied Science: Integrated Studies, Central New Mexico Community College
Associate of Arts: Business, Central New Mexico Community College
Certificate: Deep Dive Data Science Bootcamp, Central New Mexico Community College