

ENZO VILLAFUERTE

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EDUCATION

Ohio University, Russ College of Engineering | Athens, Ohio

Aug 2023 – Present

Master of Science in Industrial and Systems Engineering

GPA: 3.78

EXPERIENCE

David J. Joseph Company | Cincinnati, Ohio

May 2024 – Aug 2024

Business Intelligence Intern

- Assisted in the migration from on-premises data warehousing systems to Azure Databricks, implementing Medallion Architecture and Data Lakehouse principles to enhance data processing, centralization and storage.
- Engineered and optimized 10+ ETL pipelines using PySpark, including historical and incremental loads.
- Implemented Support Vector Machine and Naïve Bayes algorithms to classify purchase data with deductions.
- Developed custom NLP text classification pipeline, integrating pre-processing steps (stemming, vectorizer) and hyperparameter tuning with Grid Search CV.
- Participated in an AI project to predict cobbling in steel manufacturing settings. Used LSTM & XGBoost algorithms.
- Enhanced and refined several SSRS reports by updating SQL stored procedures, adding parameters, and modifying RDL files to improve report accuracy and functionality.
- Crafted data models and visualization reports in Power BI to support the Supply Chain division's forecasting.

Russ College of Engineering | Athens, Ohio

Aug 2023 – Present

Research Assistant

- Consulted on an international project to electrify two major bus lines (Ecovia and Trolebus) within the Quito, Ecuador Bus Metropolitan System, contributing to sustainable urban transportation solutions.
- Applied data analytics techniques to assess the Bus Metropolitan system's current fleet configuration, utilizing maintenance records, operational & dispatch data, and vehicle type analysis.
- Initiated plans for the future development of a centralized data warehousing system to modernize data practices.

Ohio U. Office of Information Technology | Athens, Ohio

July 2021 – Dec 2022

IT Service Desk Specialist

- Solving technical hardware & software issues for Ohio University students, faculty and staff.
- Interacted with the different software available while monitoring the status and progress towards resolution of assigned incidents, while effectively collaborating with cross-functional teams to ensure efficient resolution.

LEADERSHIP & PORTFOLIO PROJECTS

Futbol Analytics Club | *President*

Jan 2024 – May 2024

- Led analytics projects involving partnership with Sporting Cristal, a major professional soccer club in Peru.
- Built K-Means clustering models to better group players based on their morphological characteristics for nutrition and development purposes in Sporting Cristal's academy division (Years 13 to 18).

Soccer Predictive Model | *Developer*

Mar 2023 - Present

- Automated the data collection process by leveraging APIs and web scrapping to gather advanced soccer data for the development of a simulation model rooted in the Poisson Distribution, which calculates game output probabilities.
- Applied an optimized betting & portfolio management strategy, combining expected value and house odds, while employing the Kelly Criterion for budget allocation. Achieved a 370% budget growth within four months.

Data Pipeline with Cloud Integration | *Developer*

Nov 2023

- Extracted soccer event data from specialized websites employing advanced web scrapping techniques and Beautiful Soup library in Python, retrieving and parsing data into a structured JSON format.
- Engineered data cleansing and transformation procedures (ETL) to ensure data quality and consistency, to later integrate it with a cloud-based database system, Supabase, to store and manage the processed data.
- Applied data modeling techniques for consistency and schema validation for ingestion.

TECHNICAL AND OTHER SKILLS

Technical: Python, SQL, R, C#, HTML, Tableau, PowerBi, Databricks, PySpark, Apache Airflow, Apache Kafka, AMPL, Gurobi, Minitab, SAP S4/HANA, Linux & Shell scripting, Azure DevOps

Language: English (Fluent), Spanish (Fluent)