EMEKA AMADI

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TECHNICAL SKILLS

Programming Languages: Python, SQL (MySQL, PostgreSQL); **Data Analysis and Machine Learning:** Pandas, Scikit-learn, NumPy, PyTorch (CNN), TensorFlow; **Data Visualization:** Power BI; **Other:** Databricks, AWS, PySpark.

EDUCATION

UNIVERSITY OF MICHIGAN — Ann Arbor, MI
Masters of Applied Data Science, GPA: 3.92 — August 2022 – December 2023

UNIVERSITY OF PITTSBURGH — Pittsburgh, PA
Bachelor of Science in Bioinformatics, Minor in Chemistry**,** GPA: 3.48 — August 2016 – April 2020

WORK EXPERIENCE

EKIMETRICS — New York, NY
Data Science Consultant — June 2024 – Present

- Built Bayesian MMM models analyzing time series data to quantify advertising and promotion effectiveness allowing a fortune 500 client to scale marketing spend by 47% while sustaining positive returns and avoiding saturation.
- Investigated data discrepancies by writing ad hoc SqL queries to ensure data accuracy for modeling and create structured views to support data visualizations
- Designed a Budget Optimization analysis for a multi-franchise brand, creating a strategic roadmap that informed YoY budget reallocation to reach 1.4x to 2x franchise level sales growth targets
- Optimized internal product package workflows by implementing a delta mapping table conversion, reducing manual data input time by 30% and enhancing workflow scalability.
- Build data processing functionality to clean and process data across multiple brands, franchises, and sources utilizing Python and SqL in Databricks to fit schemas and properly map features.

LINCODE LABS (Computer Vision AI Startup) — Detroit, MI
Data Science Intern — October 2023 – May 2024

- Trained and evaluated CNN object detection models and engineered image processing solutions using OpenCV improving defect detection accuracy by 12% enhancing manufacturing quality inspection.
- Led an end-to-end onsite proof of concept for a manufacturing client—conducting data collection, model training, evaluation, and delivery to stakeholders. Improved model accuracy from 77% to 94%, driving successful client deployment.
- Developed an image auto annotation pipeline utilizing Python which increased the efficiency of the image annotation process by 55%.

PROJECT EXPERIENCE

DYNAMIC PRICING ESTIMATION CAPSTONE PROJECT — Detroit, MI
Project Link — September 2023 – December 2023

- Developed a Streamlit web application that displays comparative rideshare price estimations based on user inputted conditions
- Constructed an end-to-end pipeline that transforms and processes data using Python and Pandas, and deploys comparative decision tree regression models resulting in standard, dynamic and demand based predictive prices
- The application empowers consumers to identify conditions that lead to surges in pricing, leading to potential cost savings. Simultaneously, it aids businesses in visualizing and leveraging the revenue benefits of different dynamic pricing strategies.

SHORT TERM STOCK PRICE PREDICTION PROJECT — Detroit, MI
Project Link — August 2023 – October 2023

- Collaborated with a team to develop a short-term stock surge prediction model using limit order book data from Coinbase
- Utilized Pandas for data mining and feature engineering to mine sequences with significant predictive input from the raw data
- Leveraged both unsupervised and supervised learning methodologies in order to optimize predicting profitable surges. Evaluated multiple experiment designs and model approaches, most successfully KMeans and a tuned Voting Classifier
- Developed functions for scoring the most predictive clusters, utilized resampling strategies for imbalanced data, ensemble strategies for model optimization, and analyzed model performance by employing SHAP
- Achieved 88% accuracy utilizing a multiclass approach to identify profitable moments for short term trading

ENTREPRENEURIAL EXPERIENCE

EA SOLES — Detroit, MI
Founder — March 2020 – December 2022

- Leveraged data-driven analysis to identify optimal trading times for limited sneakers and apparel, optimizing resale strategy and driving up to $250,000 in annual revenue.
- Analyzed and visualized inventory and sales data using Python and Pandas, uncovering key trends in successful orders to refine acquisition strategies.
- Established seamless communication between suppliers and customers, ensuring demand fulfillment and client satisfaction.