Stavros Chatzipavlidis

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stchatz97.github.io/Portfolio

Technical Skills

Languages: Python, SQL
Databases: SQL (MySQL, PostgreSQL), NoSQL (MongoDB)
Data Visualization: Tableau, Power BI
Cloud Services: AWS, Azure, DataBricks
APIs: REST APIs, HTTP Basics, JSON Parsing

Education

Tilburg University **February 2023 – February 2024**
MSc Data Science *Tilburg, Netherlands*

University of Macedonia **September 2017 – September 2022**
BSc Economics *Thessaloniki, Greece*

Experience

4you **September 2020 – September 2022**
Data Analyst *Serres, Greece*

- Conducted SQL recursive queries and subquery optimization to streamline data retrieval processes and reduce query execution times, leading to a 50% improvement in report generation speed.
- Performed inventory time series analysis and forecasting to effectively manage excess inventory, prevent overstock, and mitigate stockouts, resulting in a notable 35% improvement in inventory turnover ratios.
- Developed dashboards using Tableau and Power BI, integrating key performance indicators, trend analysis, and interactive filters for real-time insights, resulting in a 25% reduction in price change decision cycle time.
- Conducted A/B testing for price optimization and evaluated promotional discounts, resulting in an 18% augmentation in profit margin.

Projects

Credit Risk Assessment | *Pandas, NumPy, scikit-learn, seaborn, matplotlib* **February 2024**

- Investigated challenges in a highly imbalanced peer-to-peer lending dataset.
- Deployed and fine-tuned tree-based models, including XGBoost and CatBoost, through hyperparameter optimization.
- Integrated class weights and a custom scoring function tailored to varying error costs, optimizing profitability and yielding an increase of 0.79 in G-Mean, 0.24 in Macro-Average F1, and 0.25 in AUC score.
- Attained an 80% decline in misclassification of the minority class, concurrently realizing a 1031% boost in profitability compared to the baseline model.

TFT Riot Games API | *Requests, JSON, Flask, HTML, CSS, Heroku* **January 2024**

- Leveraged Riot Games' REST API to automate the extraction of gaming insights.
- Utilized JSON parsing and function chaining to retrieve data tailored to user input.
- Mapped in-game data to images, enhancing the visualization of match history details.
- Launched a Flask-based web application with Heroku to showcase match history data with a user-friendly HTML and CSS interface.

House Price Stacked Ensemble Regression | *SciPy, scikit-learn, scikit-optimize* **October 2023**

- Executed preprocessing techniques encompassing feature engineering to generate new features and addressed normality, skewness, and kurtosis assumptions, alongside outlier analysis and removal.
- Leveraged Bayesian optimization on Lasso, Elastic Net, Ridge Regression, XGBoost, and CatBoost models, and utilized ensemble methods by averaging model predictions for further enhancement.
- Achieved a decrement of $101,169 in RMSE, $73,016 in MAE, and an amplification of R-squared by 0.4806.