

Weekly Summary - Group 5

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Summary

This week we wrapped up all of our work. We successfully completed the training and optimization of all of our predictive models, including SARIMA, XGBoost, and Prophet, ensuring that each model met our expectations for performance and accuracy. In addition, we collaborated to prepare comprehensive presentation materials to report on our project goals, methods, and results.

Each group member's contribution

Emily Ye zy367@drexel.edu

Emily's focus was on finalizing the SARIMA model to ensure that it accurately captured the complex seasonal patterns and trends in the sales data. She conducted thorough residual analysis and validation testing to confirm the reliability and performance of the model. Emily also made significant contributions to the preparation of presentation materials by providing detailed

explanations and visualizations of the SARIMA model's methodology and results to make them easier to understand.

Junkai Ge jg3944@drexel.edu

Junkai focused on developing and optimizing the XGBoost model for sales prediction. He engaged in feature engineering, selecting the most relevant features from the dataset to improve the model's performance. Junkai also worked on hyperparameter tuning to enhance the model's accuracy. He conducted cross-validation to ensure the robustness of the model and made necessary adjustments based on the results of the evaluations.

Jerry Li jl4533@drexel.edu

Jerry dedicated his efforts to refining and completing the Prophet model implementation. He meticulously adjusted the model parameters to enhance forecasting accuracy and incorporated external regressors to improve predictive capabilities. Junkai also took the lead in compiling and organizing the overall project results, integrating findings from all models into a cohesive narrative.

Shengyang Dong sd3666@drexel.edu

Shengyang is responsible for coordinating and designing the overall structure and aesthetics of the presentation materials. He ensured that all content was organized logically and presented in a clear and professional manner. In addition, he oversees the rehearsal sessions and provides feedback to the team to improve their performance during the actual presentation.

Future Work

This coming week we will be preparing our final debrief presentations and reflecting on what we have learned in this course.