



Predictive Modeling to Predict Leads and Sales From Various Marketing Channels



Rogit Raaj

Advanced Analytics Intern – Marketing



Boca Raton, FL



Florida Atlantic University

Master of Science: Data Science and Analytics

Minor in Artificial Intelligence

Soccer

Fiction Novels

Video Games



Agenda

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Problem Statement

Current Challenge

ADT can better leverage data effectively to identify seasonality and trends to calculate sales and leads across marketing channels.

Proposed Solution

Development of a sophisticated predictive model that employs advanced machine learning techniques to accurately forecast sales and lead counts.

Optimized Budget Utilization

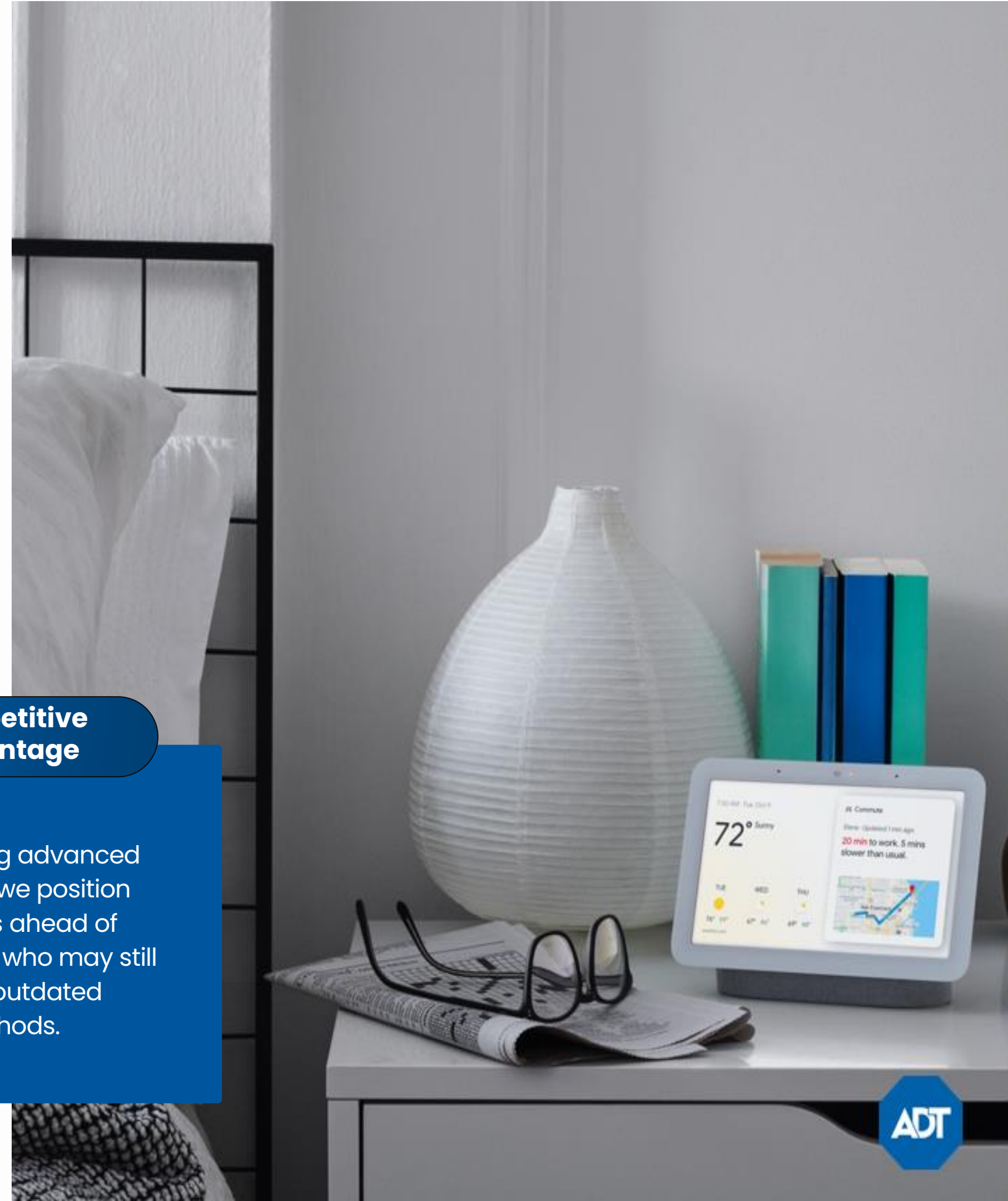
The model will enable us to allocate our marketing budget more effectively, ensuring that every dollar spent is maximized for return.

Enhanced Decision-Making

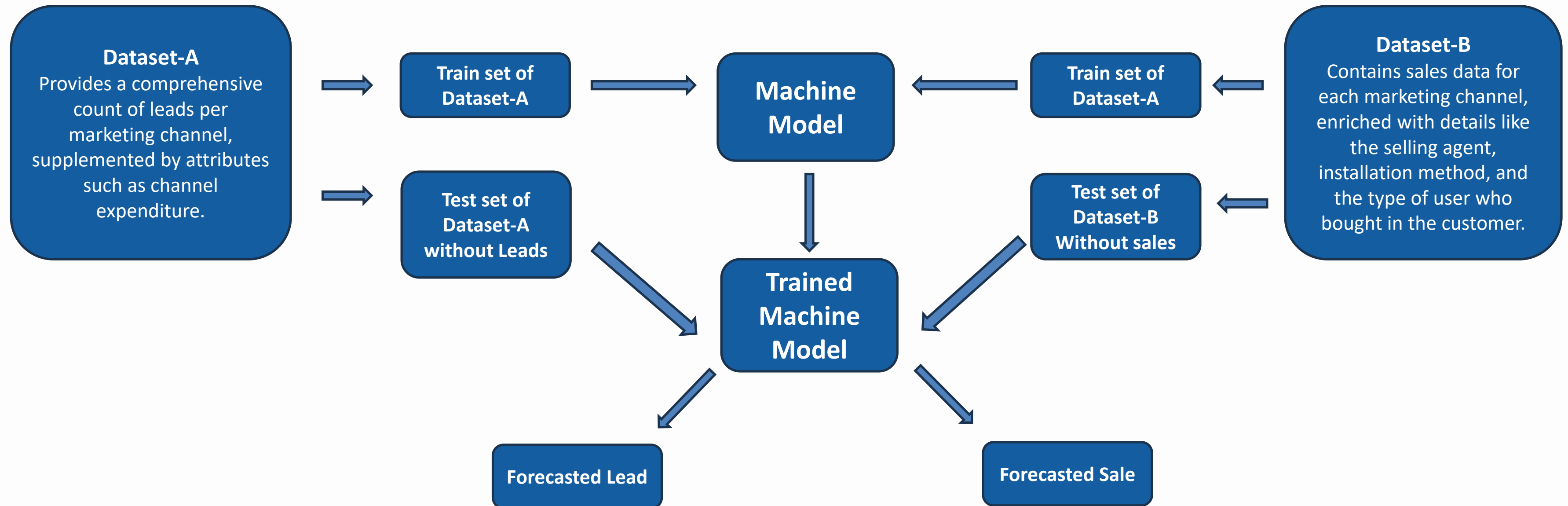
With accurate forecasts, we can make informed decisions that align with our business objectives and market dynamics.

Competitive Advantage

By adopting advanced analytics, we position ourselves ahead of competitors who may still rely on outdated methods.



Machine Learning Model

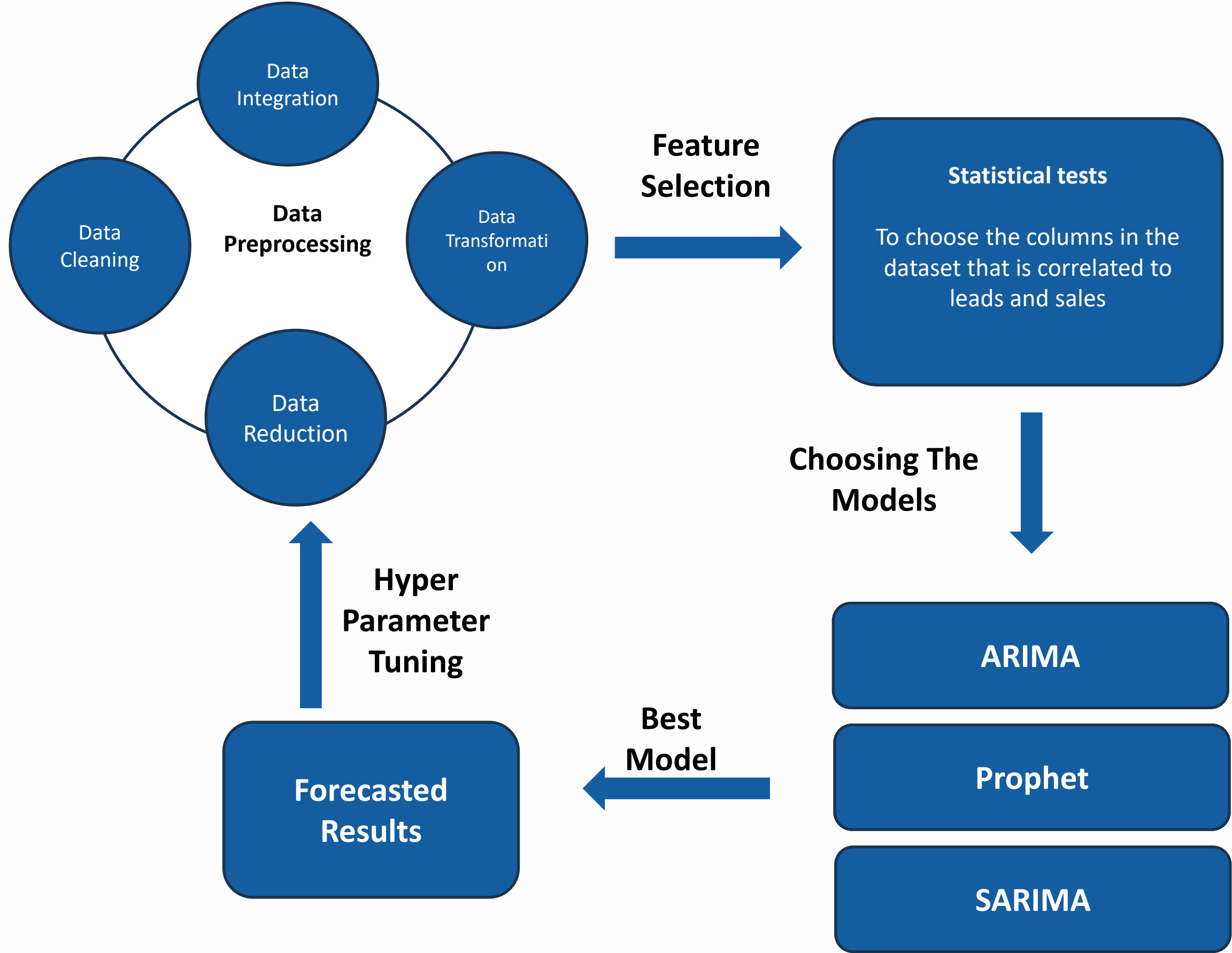


Entrusted with Tomorrow

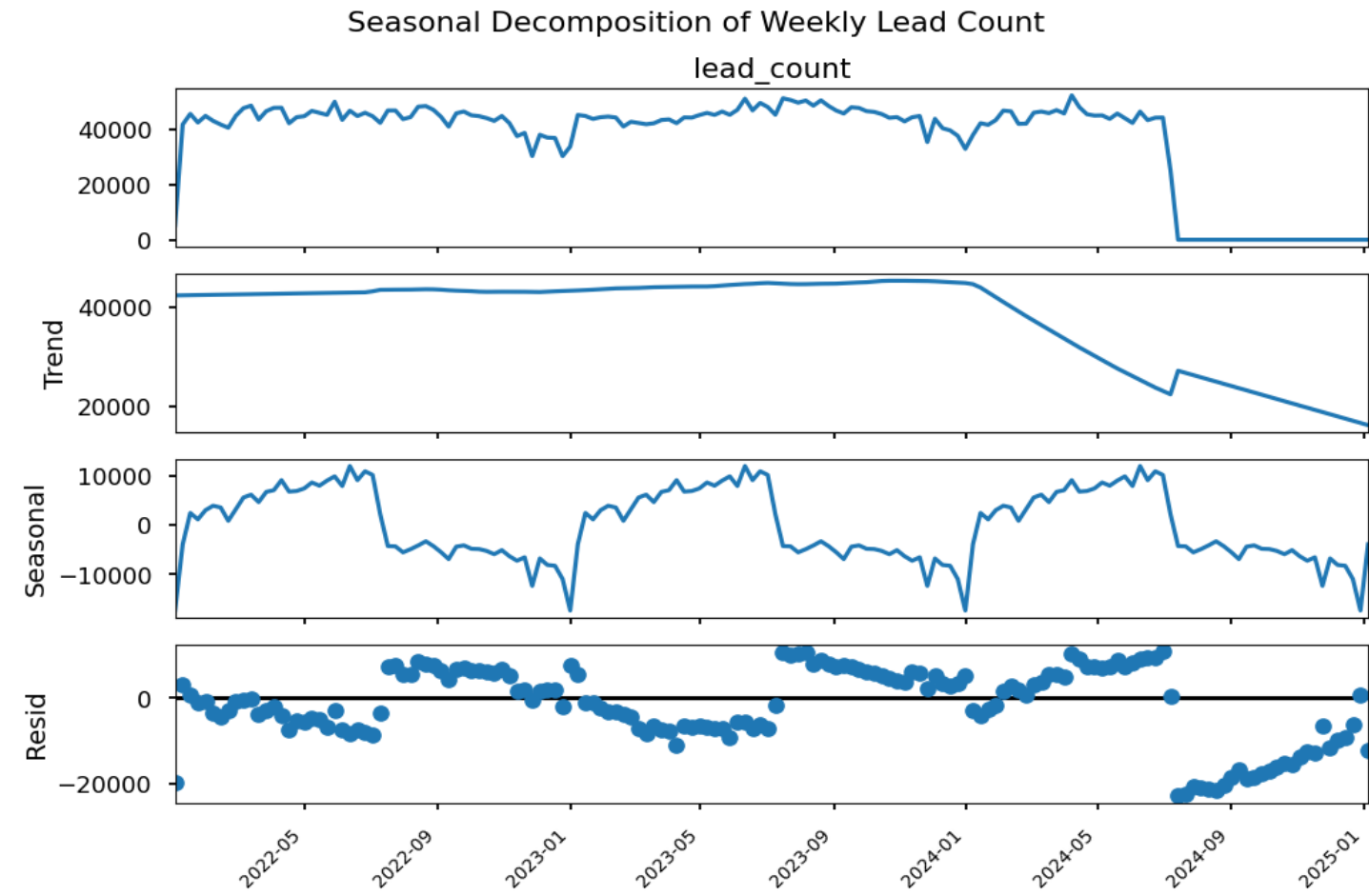
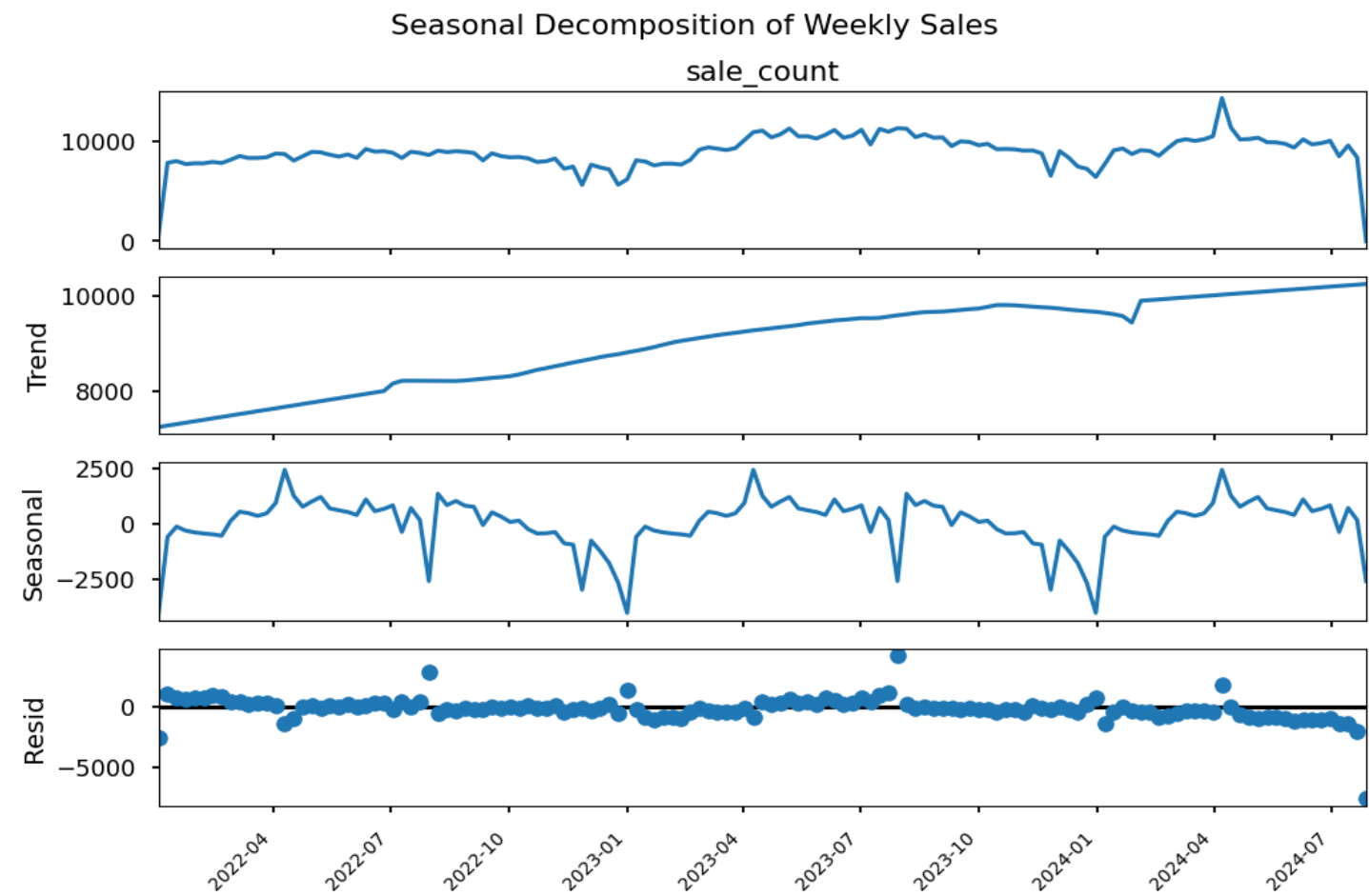
#WeAreADT



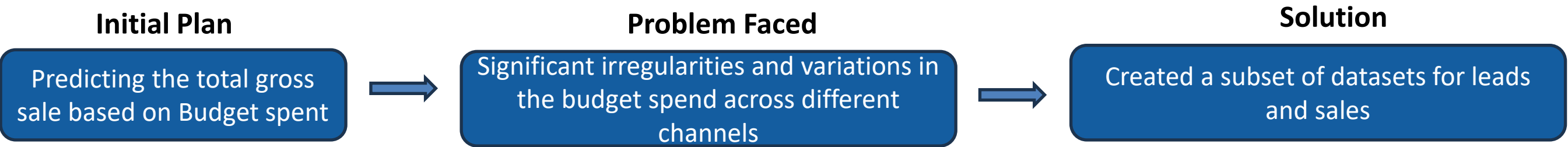
Workflow of Building a Model



Quantifying Seasonality and Trends



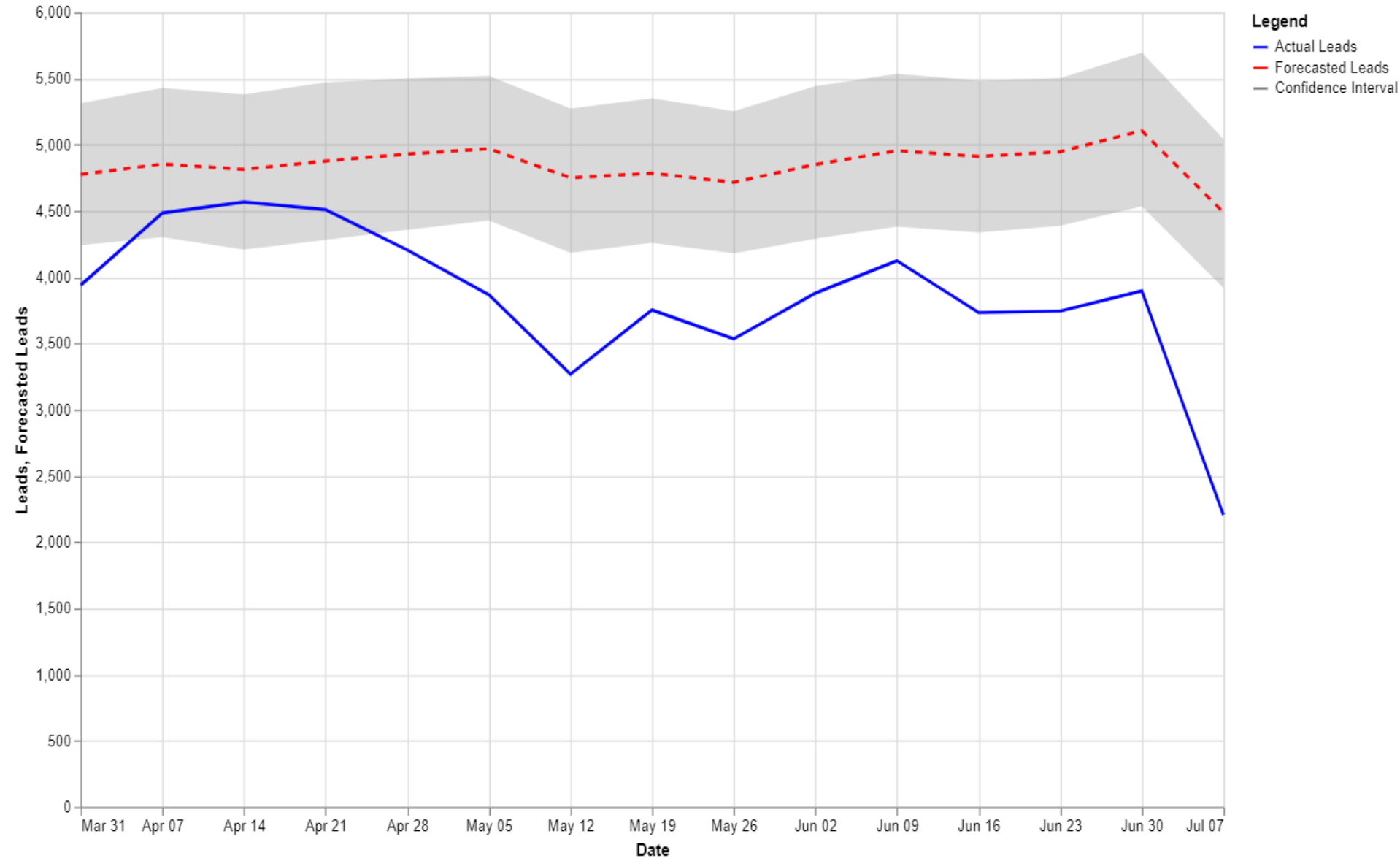
Adjusting to ADT Data



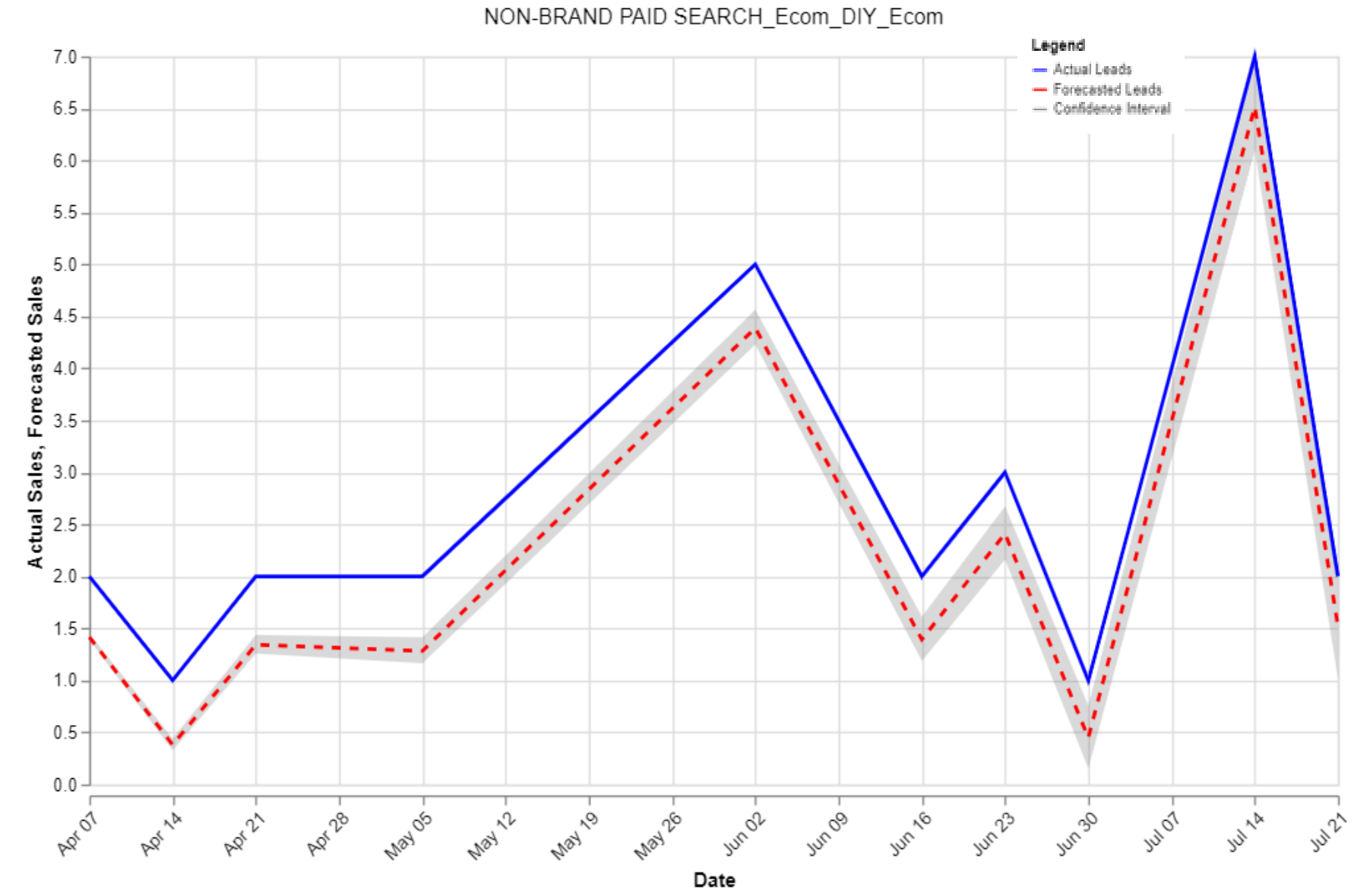
Some subchannels lacked data because the marketing campaigns were scaled back due to their poor performance in generating leads.

Predictions of the Model

Actual vs Forecasted Leads For Paid Digital-Non-Brand Paid Search



Detailed Sales Forecast Analysis by Marketing Channel, Customer Acquisition, Installation Method, and Closure Agent



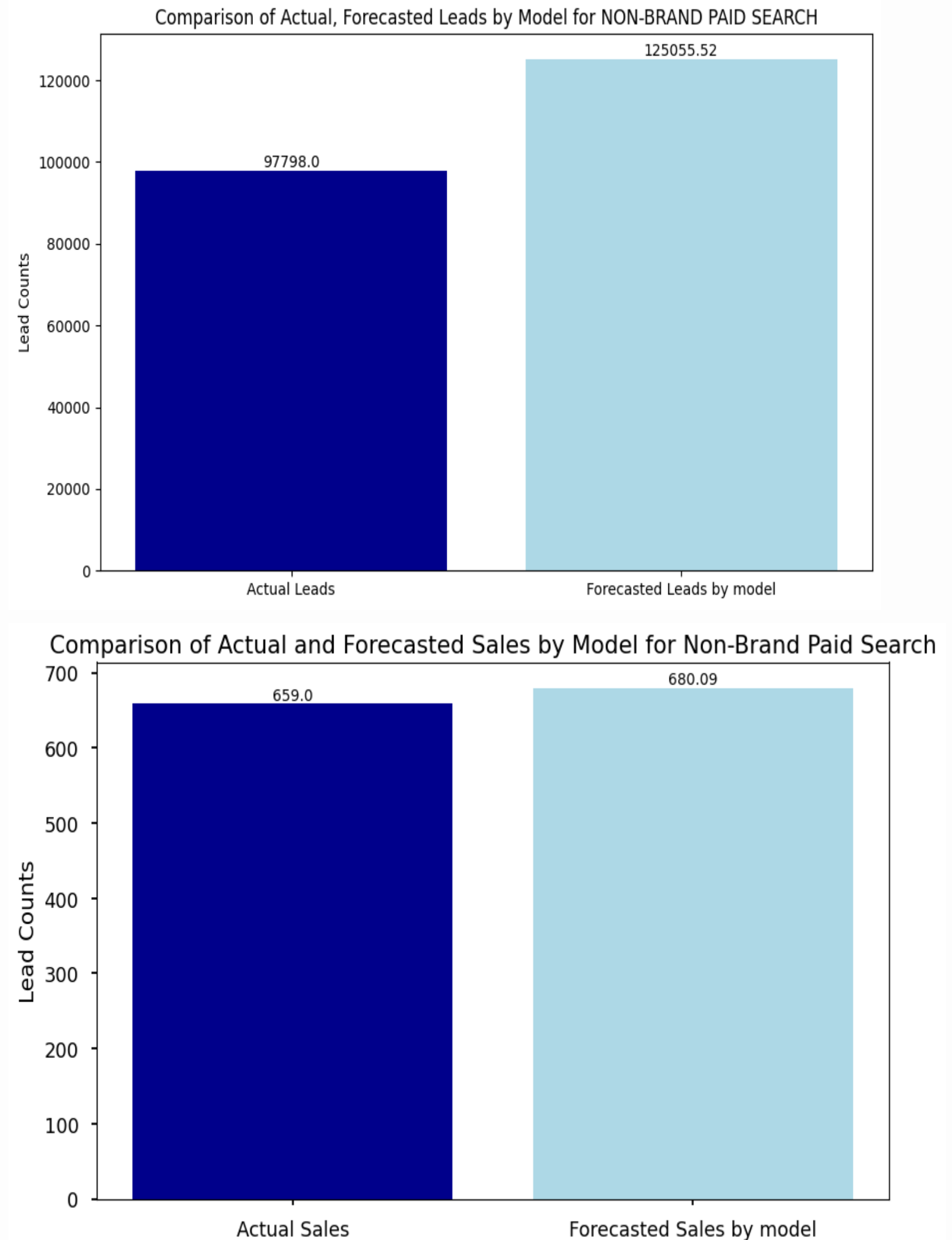
Results From Model for Non-Brand Paid Search

72%

Accuracy of the
model in
predicting
leads

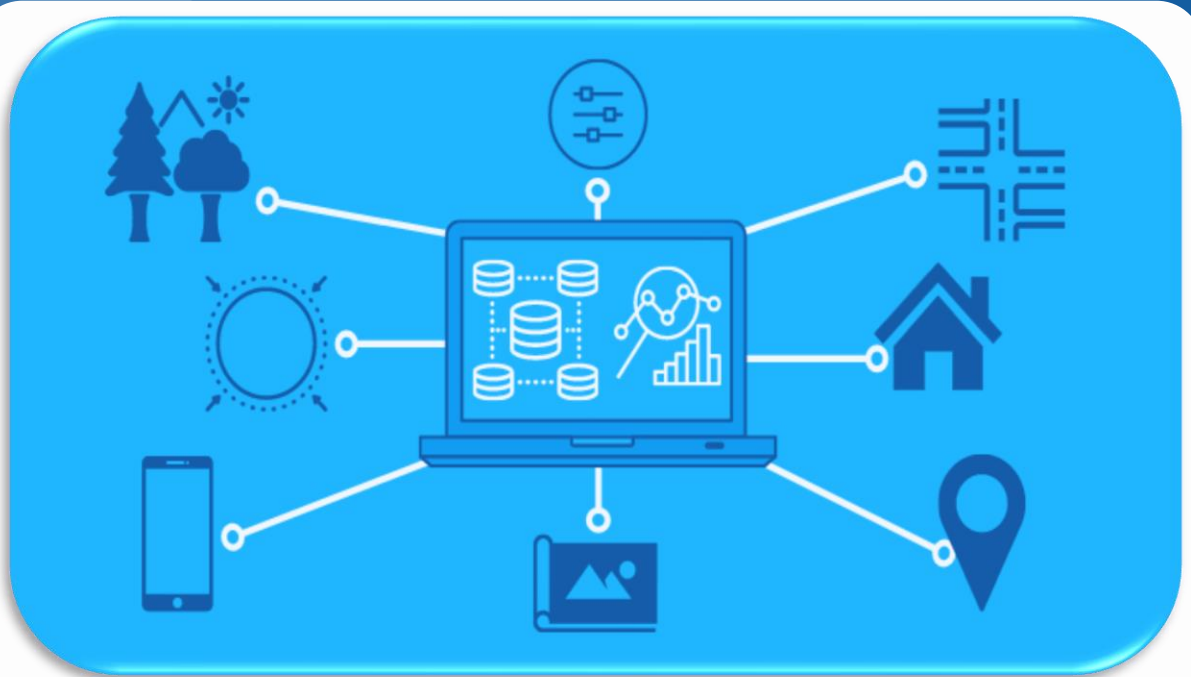
96%

Accuracy of the
model in
predicting sales



Challenges and Solutions

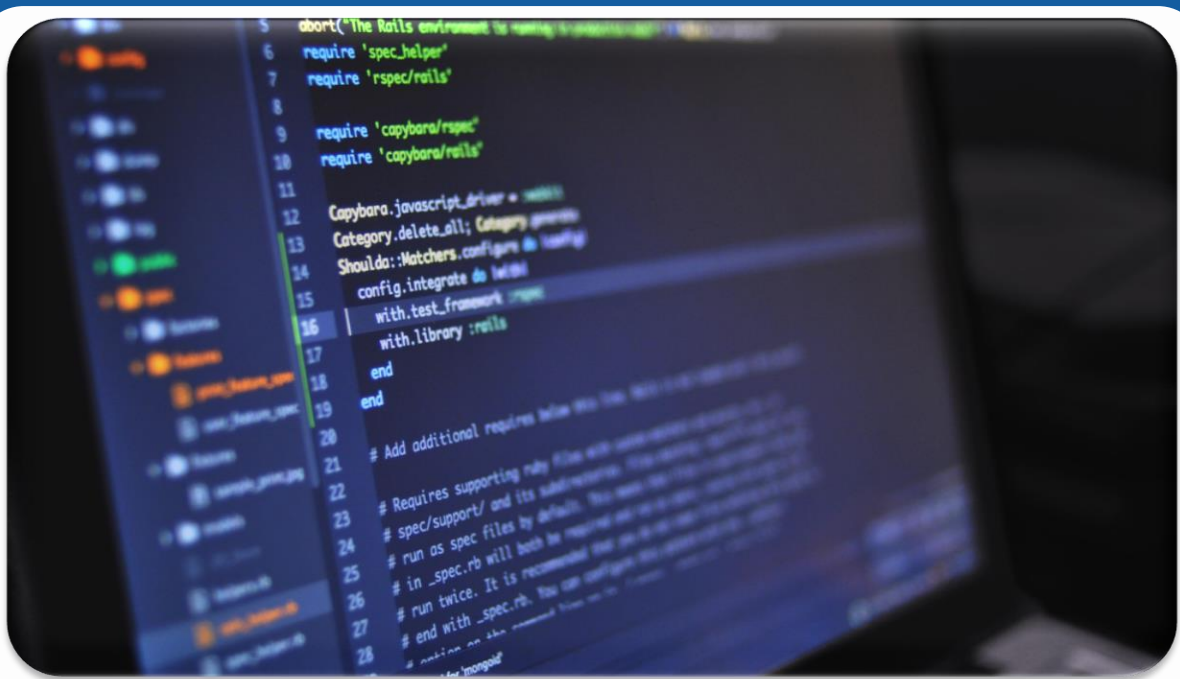
Absence of Critical Information



Additional Data Sources

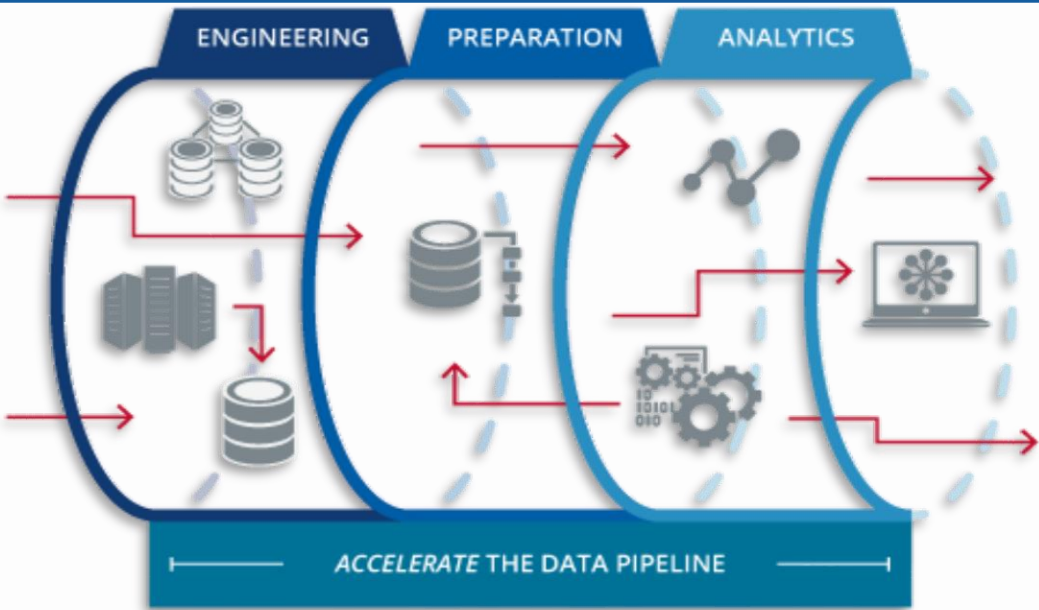
Incorporate more granular external data, including economic indicators, social media sentiment, and competitive landscape changes, along with detailed customer demographics, financial data, and behavior patterns, to significantly enhance the precision and relevance of your predictions.

Outdated Forecast due to inability to leverage new data



Combined Models and Neural Network

Explore ensemble techniques by integrating your Prophet model with machine learning regressions, ensemble models, and neural networks to enhance predictive accuracy and leverage the strengths of each method for superior performance.



Operationalize Model

Develop a pipeline for real-time data ingestion and prediction to allow dynamic updating of forecasts as new data becomes available.

← Improving predictions accuracy of the model



Dashboard Development

Create interactive dashboards to visualize real-time forecasts, impacts of external factors, and model diagnostics to aid decision-makers in strategic planning.

↑ Delayed Decision making



Questions

THANK YOU!

