

## BITSTEK CONSULTING

BitsTek is an agile business consultancy conglomerate with a diverse network of enterprises in numerous sectors and services. BitsTek was founded with the goal of being a part of our client's success stories. We have a group of solutions for all of your business's goals. Our innovative solutions aim to create an ecosystem for your company. Our core strength is that we understand your business, its challenges and divergence, post which we strategize and innovate solutions. We just don't innovate solutions, we implement it and maintain the whole cost effective gamut of solutions. We combine our passion for people and solutions and make our customers' success as our utmost priority.

**Your Vision. Our Intelligence. Extraordinary Results.**





# Advanced Market Prediction Platform



## Multi-Asset Forecasting

Stocks, commodities, currencies with unified platform



## Machine Learning Excellence

Advanced algorithms deliver actionable investment insights



## Market Edge

Stay ahead in volatile markets

# Market Demand and Solution



## Market Volatility

Growing demand for advanced forecasting tools continues rising

## AI Platform

Delivers data-driven insights for better investment decisions

## Target Users

Investment firms, hedge funds, individual traders seek accuracy

## Comprehensive Data Sources

### Historical Data

- 1975-2024: Stocks, Commodities
- 2012-2025: Currencies daily/hourly/4-hour
- Bloomberg, Refinitiv, Yahoo Finance APIs

### Alternative Data

- Social media sentiment analysis
- News feeds and API integration
- Real-time market sentiment tracking

### Data Quality

- Advanced cleaning algorithms
- Missing value imputation
- Outlier detection and handling



# Advanced Feature Engineering



## Technical Indicators

RSI, MFI, BBPowers,  
High-Low differences



## Sentiment Analysis

News-based sentiment,  
macroeconomic  
context integration



## Lagged Variables

Past prices, volumes  
for deeper context

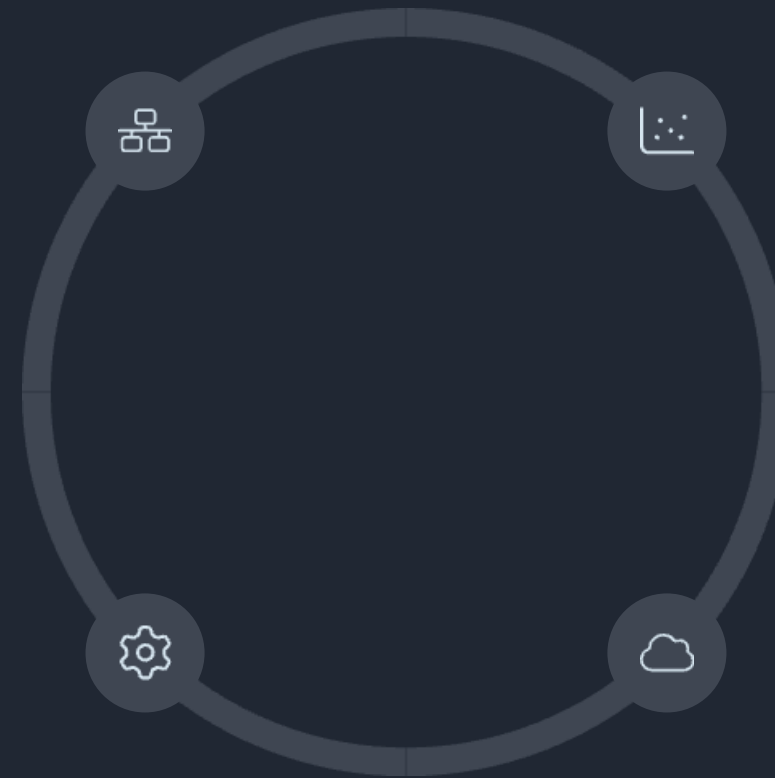
# Robust Model Architecture

## Deep Learning Models

LSTM, Transformer networks, hybrid time series

## Meta Regression

Advanced ensemble methods for accuracy



## Training Strategy

70/15/15 split, regularization with dropout, L1/L2

## AWS Infrastructure

Scalable training and deployment platform

# Superior Performance Metrics

Asset Class	RMSE	MAE	R-squared
Stocks	0.5	0.3	0.90
Commodities	0.3	0.4	0.96
Currencies	0.5	0.3	0.98

Models outperform traditional LSTM and GRU by 10-15% accuracy through rigorous backtesting validation.

# Visualization and Analytics



## Time Series

Actual vs predicted S&P 500 prices



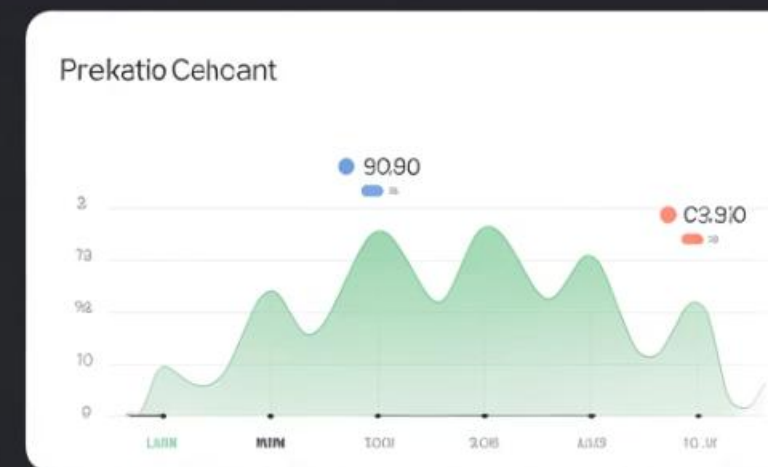
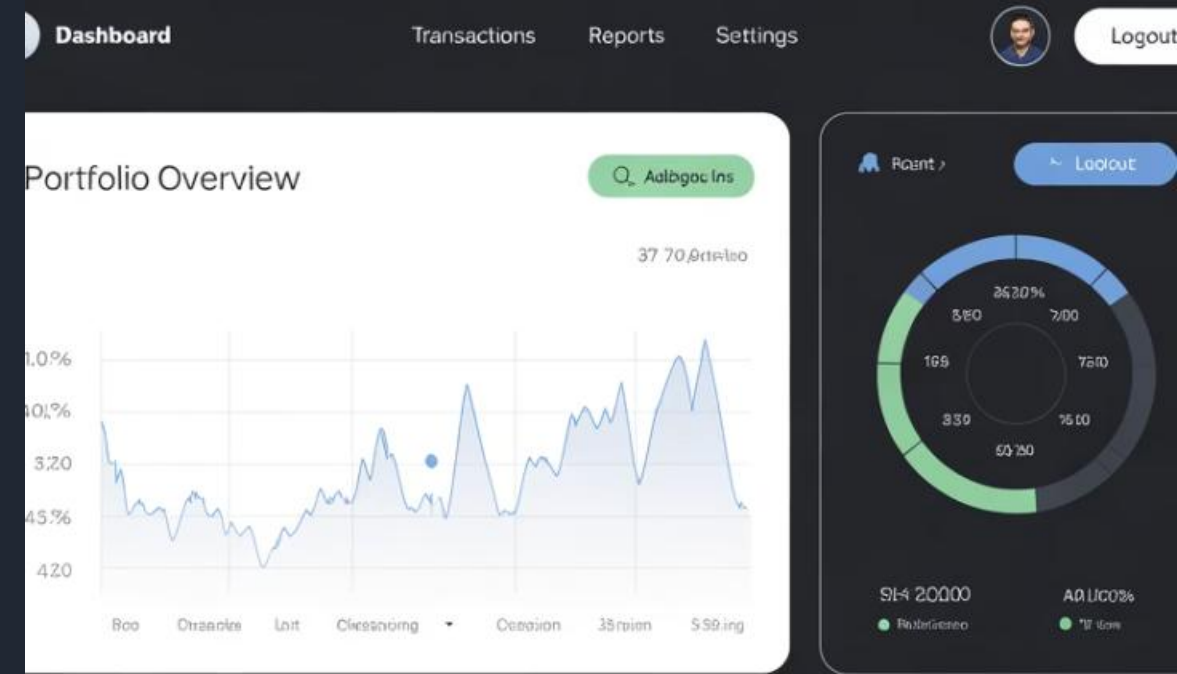
## Correlation Analysis

AAPL predicted vs actual returns



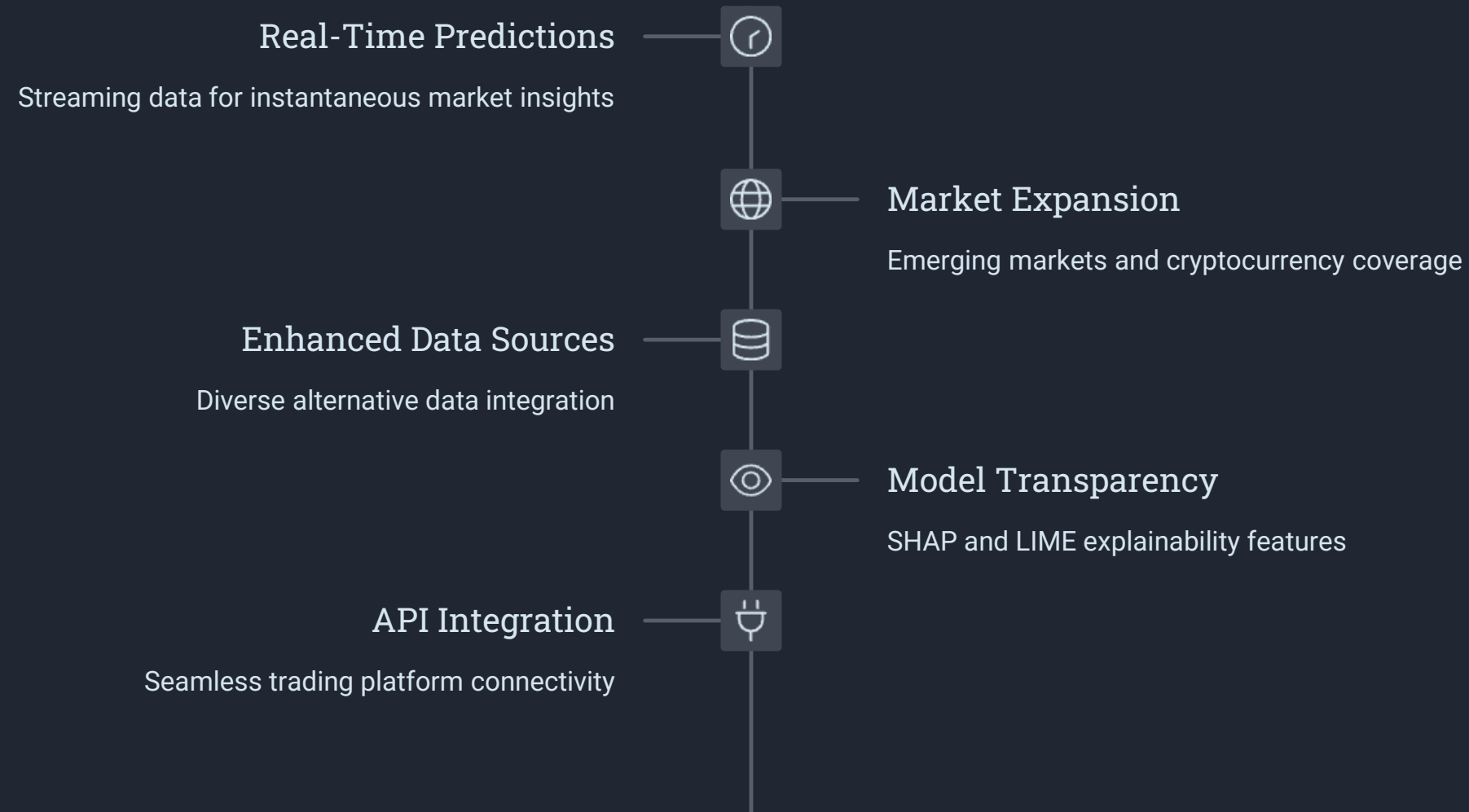
## Feature Mapping

Correlation matrix of features, targets



# Development Roadmap

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# Investment Opportunity

## Superior Performance

AI forecasting consistently beats traditional models

## Actionable Insights

Empowers smarter investment strategies and decisions

## Continuous Innovation

Ongoing research drives platform advancement