# AI-Driven Algorithmic Trading Project

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## Introduction

•Designed an AI-driven intraday trading system for AI and EV sector stocks/ETFs using TimeGPT for short-term price predictions.

•Integrated real-time news sentiment analysis with LLMs to capture market-moving headlines.

•Backtested using Backtrader, featuring adaptive risk controls and visual performance insights.

## Objectives

•To design an automated intraday trading strategy for AI and EV sector stocks/ETFs by integrating TimeGPT for short-term price prediction and LLM-based sentiment analysis for real-time signal extraction.

•To implement, backtest, and evaluate the strategy in Backtrader with effective risk management and performance visualization.

## Methodology

•Collected stock price and news data for AI and EV sector assets.

•Applied TimeGPT for forecasting and LLMs for sentiment analysis.

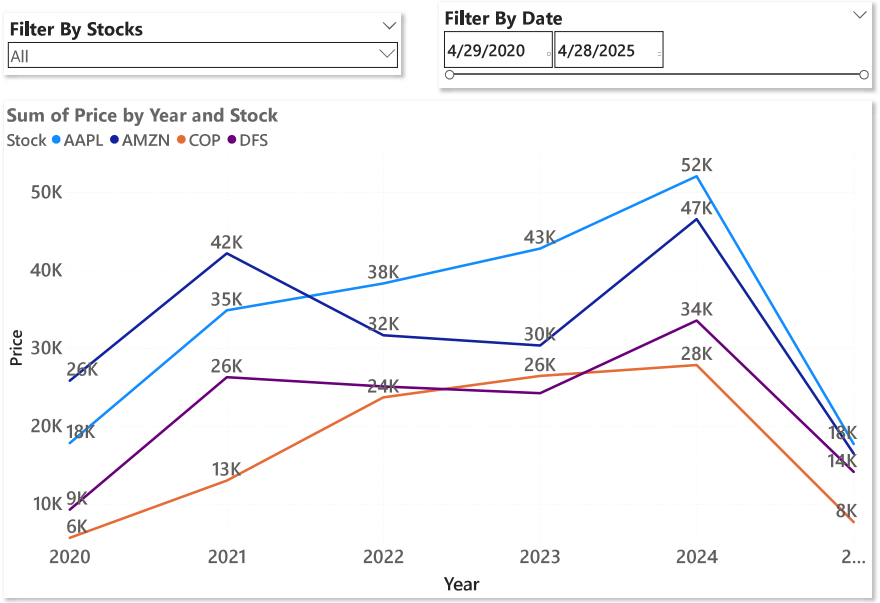
•Built and backtested strategy in Backtrader with risk controls and visuals.

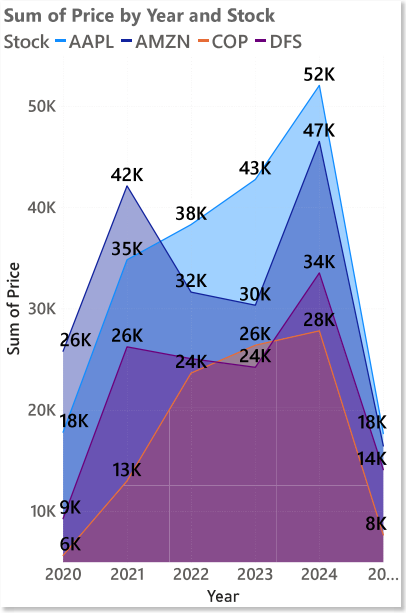
## Findings & Takeaways

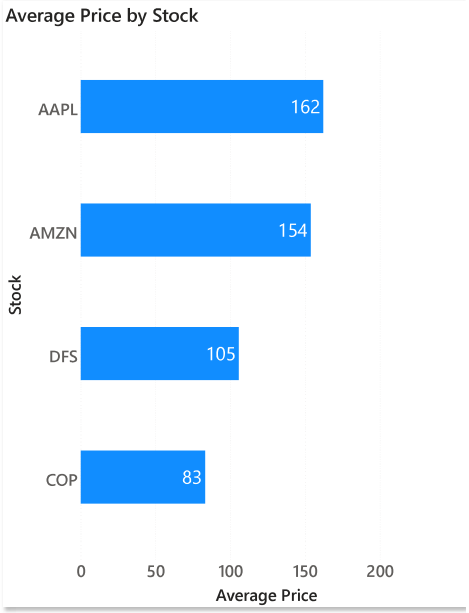
•High sentiment scores (≥0.98) often correlate with short-term stock gains.

•TimeGPT delivers accurate 7-day forecasts using 5 years of historical data.

•Spike detection with SEA highlights consistent price patterns around volatile news events, supporting event-driven strategy development.

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