Hook Document: Predicting Palantir Stocks
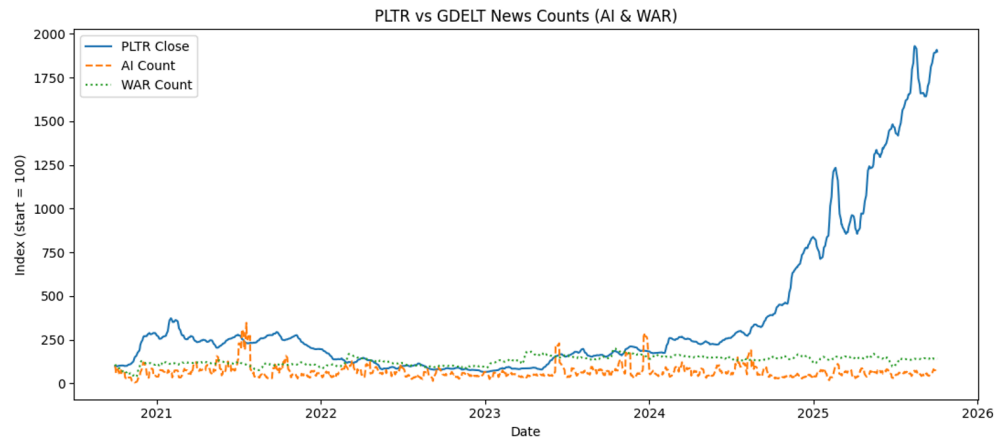

Founded in 2003 by Peter Thiel, co-founder of PayPal, Palantir Technologies builds data analytics and integration platforms that help corporations, nonprofits, and government agencies to sort through data and make data-driven decisions [1, 2]. In September 2020, the company went public on the New York Stock Exchange at $10 per share, with a market cap of approximately $15.7 million [1]. Since then, the company now sits at around $180 per share with a market cap of about $430 billion—an almost 1700% growth.

Most interestingly, their stock has fluctuated heavily within the past 5 years, often reflecting developments in artificial intelligence and government contracts. This volatility makes Palantir an especially compelling subject for our time-series analysis, as it allows us to explore how emerging technologies like AI influence investor behavior and company value in real time. Furthermore, the company's close partnerships with the United States Department of Defense and Immigration and Customs Enforcement (ICE) have sparked controversy as its tools can analyze massive amounts of personal and government data [2]. These relationships raise ethical concerns about privacy, surveillance, and the implications of AI-driven decision-making, adding an additional layer of curiosity to our project.

You are a data scientist tasked with predicting Palantir stocks based on price history within their 5 years of being public and based on key words found in the media. You will merge Palantir (PLTR) daily prices (9/30/2020–present) with GDELT GKG counts/tone of AI- and war-related keywords to forecast 5-day returns.

Github link: https://github.com/ewunder32/DS4002_CS3/tree/main

[1] Endo, T. (2021, August 6). Palantir's growth story: How the magic of data analysis is changing the world. Medium.
https://medium.com/@takaendo/palantirs-growth-story-how-the-magic-of-data-analysis-is-changing-the-world-1b2c7c6ad7cb

[2] Hern, A. (2021, February 17). What does Palantir actually do? WIRED.
https://www.wired.co.uk/article/what-does-palantir-do