

# Stock Market Prediction

Case Study by Mohammad Murad, Spring 2024

## Prompt

Congratulations on your new position as a data scientist for a large hedge fund! Your expertise in data analysis and predictive modeling will play a crucial role in shaping investment strategies and maximizing returns. There is an exciting new project for you to lead and I know your skills and commitment to data-driven decision-making will allow you to succeed!

In recent years, there has been a large uptick in AI investment and research by a variety of tech companies-so called “Leaders” in the industry. As part of your first project, you are tasked with conducting a comprehensive analysis of these tech companies who are influenced by the AI hype, leveraging advanced time series analysis techniques. Your goal is to assess the feasibility of utilizing AI-driven models to predict stock performance, with a particular focus on the select key player tech companies who have large investments in AI. You will then report your findings to your team lead in the form of a presentation. Your work could potentially help generate millions of dollars in returns!

## Deliverable

You will be responsible for generating the final items:

- A GitHub repository that contains the code for your project and your findings.
- A presentation reporting your findings, as well as your methodology and process.