



FIN 377 - Investments

Group AI Assignment 2

AI-Driven Investment Strategies

This AI assignment must be done as a group, and all group members (unless there are unusual circumstances) will receive the same grade. The assignment must be uploaded to the D2L folder by the due date listed on the course schedule. Use the following title: "FIN 377 AI Ass. 2, Group X". Upload ONLY ONE assignment per group. All prompts (including the names of the AI models used) and (unedited) completions should be included in an appendix.

AI Assignment 2: AI-Driven Investment Strategies

Assignment Overview

In this project, you will research and analyze different investment strategies that utilize artificial intelligence (AI) and machine learning (ML) techniques. You will describe how these strategies work, evaluate their performance and potential risks, and provide your assessment of their viability as investment approaches.

Instructions

1. Research and identify three different AI/ML-driven investment strategies being used in the industry today. These could include strategies like:

- AI-powered stock selection models
- ML-based asset allocation and portfolio optimization
- AI-driven high-frequency and algorithmic trading
- AI-enhanced fundamental analysis and valuation models
- Natural language processing (NLP) based sentiment analysis for trading

2. For each AI strategy you identified, provide a detailed description of how it works, including:

- The specific AI/ML techniques and algorithms being used
- The data inputs and sources the models rely on
- How the AI generates investment signals and makes trading decisions
- Any human oversight or discretionary components in the strategy

3. Discuss the potential risks and drawbacks of each AI strategy, such as:

- Model overfitting and deterioration of live trading performance
- "Black box" risk and lack of interpretability in complex ML models
- Vulnerability to market regime changes and strategy crowding
- Data quality issues and potential for faulty trading signals
- Regulatory and compliance risks with AI-driven trading

4. Provide your overall assessment of the viability and future potential of AI-based investing. Consider questions like:

- Are these strategies likely to outperform discretionary human investing over the long run?
- In what market conditions and asset classes are AI strategies most effective?
- Will AI largely replace human investors or mostly act as a tool to augment human decision making?
- What are the most exciting AI investing innovations on the horizon?