

Using Machine Learning in
Trading and Finance
New York Institute of Finance,
Google Cloud

Overview

- Week 1
- Week 2
- Week 3
- Week 4

Grades

Notes

Week 4

Using Machine Learning in Trading and Finance

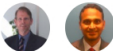
Week 4

Discuss the topic here.

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Build a Pair Trading Strategy Prediction Model



In this module, we introduce pairs trading. We will discuss what pairs trading is, and how you can make money doing it. We will discuss what you need to know about the members to form a suitable pair.

Learning Objectives

- Build a pair trading strategy prediction model and back test it
- Understand the advantages of trading a pair of stocks versus a single stock

⤴ Less

Picking Pairs

▶ **Video:** Introduction to Pair Trading 7 min

Resume

▶ **Video:** Picking Pairs 4 min

▶ **Video:** Picking Pairs with Clustering 8 min

Trading Strategy

▶ **Video:** How to implement a Pair Trading Strategy 9 min

▶ **Video:** Evaluate Results of a Pair Trade 6 min

Backtesting and Avoiding Overfitting


▶ **Video:** Backtesting and Avoiding Overfitting 6 min

▶ **Video:** Next Steps: Improvements to your Pair Strategy 5 min

▶ **Video:** Lab Intro: Pairs Trading 30 sec


📝 **Graded External Tool:** Lab: Pairs Trading Strategy 1h 15m


Due Mar 8, 1:59 AM CST

 **Video:** Lab Solution: Pairs Trading 7 min

Optimize momentum trading model to minimize costs

 **Video:** Kalman Filter Introduction 11 min

 **Video:** Kalman Filter Trading Applications 6 min

 **Quiz:** Pairs Trading Strategy concepts 5 questions Due Mar 8, 1:59 AM CST

 **Ungraded External Tool:** Optional Lab: Estimate parameters using Kalman Filters 2h 30m

