

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

Discussion Forums

Week 1

Using Machine Learning in Trading and Finance

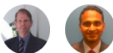
Week 1

Discuss the topic here.

45 threads · Last post a month ago

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Introduction to Quantitative Trading and TensorFlow



In this module we discuss the key components that are common to every trading strategy, no matter how complex. This foundation will help guide you as you develop more advanced strategies using machine learning techniques.

Learning Objectives

- Identify the different types of entries and exits in trading strategies
- Distinguish between exogenous and endogenous trading rules
- Construct a basic trading strategy

[^](#) [Less](#)

Introduction to TensorFlow, Trading, ML

Video: Introduction to Course 6 min

[Resume](#)

Reading: Welcome to Using Machine Learning in Trading and Finance 10 min

Understand Quantitative Trading Strategies

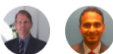
Video: Basic Trading Strategy Entries and Exits Endogenous Exogenous 7 min

Video: Basic Trading Strategy Building a Trading Model 2 min

Video: Advanced Concepts in Trading Strategies 6 min

Quiz: Understand Quantitative Strategies 4 questions Due Feb 15, 1:59 AM CST

Introduction to TensorFlow



Learning Objectives


- Build a machine learning model using the TensorFlow Estimator API
- Use the tf.data API for building a data pipeline for training
- Understand the TensorFlow API hierarchy

[^](#) [Less](#)

Introduction to TensorFlow


 **Video:** Overview 1 min


[Resume](#)


 **Video:** Introduction to TensorFlow 6 min

 **Video:** TensorFlow API Hierarchy 4 min

 **Video:** Components of tensorflow Tensors and Variables 8 min


 **Video:** Getting Started with Google Cloud Platform and Qwiklabs 3 min


 **Video:** Lab Intro Writing low-level TensorFlow programs 43 sec


 **Graded External Tool:** Lab: Writing low-level TensorFlow Programs 2h Due Feb 15, 1:59 AM CST


 **Video:** Working in-memory and with files 3 min

 **Video:** Training on Large Datasets with tf.data API 4 min

 **Video:** Getting the data ready for model training 6 min

 **Video:** Embeddings 8 min

 **Video:** Lab Intro Manipulating data with TensorFlow Dataset API 34 sec

 **Graded External Tool:** Lab: Manipulating data with TensorFlow Dataset API 1h Due Feb 15, 1:59 AM CST

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