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# Evaluation of Machine Learning in Finance

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Problems in Empirical Finance

What is Machine Learning?

Why apply Machine Learning in Finance?

Model Specification

Simulation

- Real World Observations

- Simulation Design

Real Data

Results

Questions and Answers

# Problems in Empirical Finance

Large collection of potential factors - curse of dimensionality

Time series

# What is Machine Learning?

Statistical/Machine Learning refers to a vast set of tools for understanding data

Building statistical models for predicting outputs based on inputs

Find patterns in datasets

Examples of models: Ordinary Least Squares, LASSO

Regression, Generalized Linear Models, Decisions Trees, Neural Networks

# Why apply Machine Learning in Finance?

Well suited for prediction

Better equipped to deal with large dimensionality

Capable of capturing non-linear transformations humans cannot realistically find

Already shown to have results in literature

# Model Overview

Returns are modelled as an additive error model

# Real World Observations

content...



# Simulation Design

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# Data Source

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# Results

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# Questions and Answers