

FIN3210: Fintech Theory and Practice

Final Project Guideline

The final project is team-based and each team needs to write a report for submission in PDF format. Each Team is required to give a presentation and hand in an electronic copy of the final project report.

The final project presentation will take place on December 14th, 2023 during the class.

The final project report is due on December 19th, 2023.

The final project is: Stock Return Prediction in Machine Learning

You may choose any 5-10 stocks listed on Shanghai or Shenzhen stock exchange from 2016.1.1 to 2022.12.31, and apply machine learning methods to asset pricing and develop a ML backed daily return prediction model (next trading day's return). Your report should involve the following steps:

1. Construct a baseline model using the traditional asset pricing model (you may choose your own model).
2. Construct regularized linear regression models.
3. Construct tree-based models or deep learning models.
4. Compare the performance of the ML models to the baseline model, comment on it and explain why.

Requirements for the presentation:

Each team will have 10-15 minutes including presentation and Q&A. For each team, **no less than 3** team members are expected to participate in the presentation. Before the start of the class, you are required to submit an electronic copy of the presentation slides to both the professor and the TA via email, and submit a hard copy of the presentation slides to the professor.

Requirements for the report:

1. Maximum 10 pages [excluding](#) front page and reference.
2. Style: Times New Roman, font 12, double spaced, left margin 3 cm., top, right and bottom 2 cm, paper size A4.
3. On front page, write down the team number and the name & student number of each team member.