

Ming Cong Ow

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Education

MEng Engineering Science, University of Oxford

Oct 2017 – Jun 2021

- Achieved a First-Class Honors
- Elected to a merit-based scholarship in Engineering Science
- Relevant courses: Machine Learning, Data Transformation, and Convex Optimisation

Relevant Projects

Option Trading Strategy

Jan 2022 – Mar 2022

- Developed a trading strategy for U.S. stock option spread (straddle) based on polynomial regression and geometric Brownian motion
- Modelled straddle price w.r.t time and stock price from polynomial regression; Predicted next 5-min straddle price graph via extrapolation
- Computed probability distribution for next 5-min stock price based on geometric Brownian motion
- Implemented an algorithm to trade straddle based on its next 5-min expected price; Created an execution algorithm to achieve delta neutral position
- Back tested the strategy with AMD's option minute data and achieved xx Sharpe with xx maximum drawdown

QRT Data Challenge

Feb 2022

- Developed a linear predictive model for stock return based on neural networks in Keras
- Implemented a RNN based on 4-layer MLP; The input is last 250 days return and the output is the predicted next day return
- Reduced overfitting by applying dropout, bootstrap, and ensemble
- 17% higher than the averaged submitted score

Final Year Project: Data-driven Optimisation Algorithms

Oct 2020 – Jun 2021

- Applied algorithms for solving uncertain optimisation problems to practical risk management process
- Coded a large-scale optimal power flow problem with 562281×51 matrix based on MATLAB and commercial package MOSEK
- Conducted simulation to test algorithms performance and risk
- Described the trade-off of each algorithm in a 50-page report and demonstrated its' viability in practical applications

Key Skills & Interests

- Language: Fluent in English, native in Mandarin Chinese