Yuheng Lan

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EDUCATION

Shandong University(GPA: 3.8/4.0) **Qingdao, China**
Master of Science, Financial Mathematics and Financial Engineering *Sep. 2020 - Present*

- **Honors:** Academic Scholarship, Merit Student of Shandong University

Dalian University of Technology(GPA: 84.9/100) **Dalian, China**
Bachelor of Science, Information and Computing Science *Sep. 2016 - Jun. 2020*

- **Selected Honors:** First class scholarship in 2016, Lingshui scholarship, Merit Student of Dalian University of Technology, MCM/ICM in 2017(Honorable Mention), CUMCM in 2017(Provincial first place)

RESEARCH EXPERIENCE

Momentum effect problem based on Ambiguity aversion(Master's thesis) *Jun. 2022 - Present*

- Use the convex dual method to obtain the analytical solution of the optimal investment portfolio.
- Building a neural network in **python** to obtain numerical solutions of optimal investment strategies.

Boundary Extensions For Mappings Between Metric Spaces *Sep. 2020 - Jun. 2022*

- Extended the general Whitney decomposition to metric space.
- Generalized the corresponding results of existence and uniqueness to φ-length John in metric spaces.

High-dimensional Data Analysis Based On PICASSO(Undergraduate thesis) *Sep. 2019 - Jun. 2020*

- Implementing the PICSASSO algorithm in **R** and comparing it with common algorithms.
- Applying the PICASSO algorithm to the JAFFE dataset, an 83% recognition rate was achieved for expression classification and a 99% rate for expressions such as happiness and surprise.

Research and Application of Deep Learning *Sep. 2017 - Jun. 2019*

- Implement algorithms (RNN, LSTM, BT-RNN, wavenet) in **python** and compare them.

RELATED PROJECTS

Mathematical Modeling and Computational Mathematics in MATLAB *Jun. 2018 - Dec. 2018*

- Implemented a model to recognize digits from 0 to 9 from an image;
- Drew numerical approximation images of Bezier curves and surfaces; Implemented multiple algorithms in numerical algebra, optimization and numerical solution of differential equations.

Fundamentals of Computer Science in C++ *Sep. 2017 - May 2018*

- Implemented fundamental data structures and their corresponding problems.
- Implemented several mathematical models and numerous graph theory algorithms.

SKILLS & INTERESTS

Programming skills: C++, MATLAB, LaTeX, Python (numpy, pandas, matplotlib), R
Languages: Mandarin (native), English (fluent)