

Yi (Leonardo) Dai

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Education

Business School, Central South University

Aug-2019 to Jun-2023

Bachelor of Science in Data Science and Business Analytics

Changsha, China

- ♦ Major GPA: 3.67 / 4.0, Overall GPA: 3.70 / 4.0
- ♦ Selected to Advanced Honor Class of Data Science and Business Analytics Program, top 10% selected among all applicants.
- ♦ Major Courses: *Convex Optimization, Discrete Mathematics, Linear Algebra, Multivariate Statistical Analysis, Stochastic Processes, Operations Research, Data Structure and Algorithm, Python machine learning, Business Data Analytics, Business Intelligence, Econometrics*

Honors

Academic Scholarship

Sept-25-2022, Nov-3-2021, Nov-3-2020

Third prize at school level of China National College Student "Innovation, Originality and Entrepreneurship" Challenge

May-24-2022

Meritorious Winner of Mathematical Contest in Modeling (**top 5%**)

Apr-3-2022

University Grand Prize of China College Students' 'Internet+' Innovation and Entrepreneurship Competition

Aug-25-2021

Third Prize at Provincial Level of National Undergraduate Engineering Training Integration Ability Competition

Apr-20-2021

Publication

Qingxian An, Ping Wang, Yongliang Zeng, **Yi Dai**, "Cooperative social network community partition: A data envelopment analysis approach," **Computers & Industrial Engineering**, published, 2022.

Yi Dai *et al.*, "A quantitative trading system for gold and bitcoin market and its trading behavior analysis," **International Conference on Data Mining and Knowledge Discovery**, under review, 2022.

Research Experiences

Cooperative social network community partition: A data envelopment analysis approach (Submitted to CAIE 2022)

May-2021 to Sept-2022

Advisors: Prof. Qingxian An (IMIS, CSU)

- ♦ Develop a weighted benefit network based on the DEA income model that considers the benefits of cooperation between any two nodes.
- ♦ Propose a modified community partitioning method for weighted interest networks, based on the cooperative relationship and social network structure of nodes.
- ♦ The proposed approach is based on Shapley value mechanism to calculate the gains of nodes in different communities.
- ♦ Mainly responsible for writing, reviewing and editing.
- ♦ Paper link: <https://www.sciencedirect.com/science/article/pii/S0360835222006465> (**Accepted**)

Research on R&D efficiency of science and technology innovation in universities and its influencing factors based on DEA-Tobit model

May-2022 to Jul-2022

Advisors: Prof. Qingxian An (IMIS, CSU)

- ♦ Combine with data visualization technology to make a descriptive statistical analysis of the research and innovation R&D situation of national universities.
- ♦ Measure the R&D efficiency of university research and innovation continuously and dynamically in 31 provinces in China from 2010 to 2020 Based on the DEA model.
- ♦ Develop a Tobit regression model to explore the influence of environmental factors on the efficiency of research and innovation R&D in universities.

A quantitative trading system for gold and bitcoin market and its trading behavior analysis

Advisors: Prof. Youjun Deng (ICS, CSU)

Feb-2022 to May-2022

- ♦ Propose a quantitative trading model based on a combination of behavioral propensities and decision thresholds.
- ♦ Introduce innovations in the design of non-prediction-based decision models and proposes intention indicators that can be used to guide the decision process.
- ♦ Analyze the characteristics of the model's trading behavior in different environments and explore the impact of transaction costs on the model's trading decisions.

Portfolio-based risk appetite assessment project

Jul-2021 to Sept-2021

Advisors: Prof. Yanju Zhou (IMIS, CSU)

- ♦ Design and distribute 406 portfolio-based risk appetite test questionnaires.
- ♦ Match with offline BBK store managers and questionnaire delivery people to collect data and ensure the credibility of the data source.
- ♦ Adjust the questionnaire based on the completion of the questionnaire and feedback from the fillers.

A study of tourism destination selection based on multi-source web texts

Feb-2021 to Mar-2021

Advisors: Prof. HongYu Zhang (IMIS, CSU)

- ♦ Collect web travelogues, online attraction reviews, user information and other multi-source web texts.
- ♦ Introduce perceptual distance to build user profiles for grouping and analyzing visitors.
- ♦ Portray the characteristics of attractions according to the choices and feedback of different visitors.
- ♦ Match and recommend attractions to target potential visitors.

Extracurricular Activities

Class Monitor

Aug-2019 to Oct-2021

- ♦ Organize more than 10 major events involving the whole class during the term of service.
- ♦ In 2021, representing the class to participate in the merit defense, for which the class was awarded as the excellent class collective pacesetter (**top 3%**) of Central South University.

Volunteer at CSU Library

May-2020 to Oct-2022

- ♦ Awarded Outstanding Volunteer for two consecutive years.

Volunteer at CNAIS

Oct-2021

Second Prize in the CSU Entrepreneurial Plan Competition

May-28-2020

First Prize of Collective Fancy Rope Skipping in Autumn Games of Central South University

Sept-27-2019

Skills

Language	English (TOFEL: 104; GRE: 323), Chinese Mandarin
Software	Microsoft Office, SPSS, Tableau
Programming	MATLAB, Python (cvxpy, selenium, matplotlib, sklearn), Lingo