

ZHIYUAN LIU

School of Information, Renmin University of China, Beijing, China
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EDUCATION

Renmin University of China

Master in Management Science and Engineering

- GPA: 3.94/4.00
- Relevant Coursework: Modern Statistic Methods, Social Networks Analysis, Business Data Analytics

Beijing, China
Sept. 2021 - June 2024

Renmin University of China

Bachelor in Computer Science and Technology & Finance Double Major

- GPA: 3.6/4.00
- Relevant Coursework: Advanced Algebra, Mathematical Analysis, Algorithmic Analysis and Design, Statistics, Operations Research, Econometrics, Finance, Affective Psychology

Beijing, China
Sept. 2017 - June 2021

Girton College, University of Cambridge

Summer Program

Cambridge, UK
Aug. 2019 - Sept. 2019

RESEARCH INTERESTS

- Topics: Social Media Analytics, Business Analytics, Multimodal Data Analysis, Artificial Intelligence
- Methodologies: Machine Learning, Data Mining, Deep Learning, Econometric/Statistical Analysis

PUBLICATIONS

1. **Liu, Z.**, Xu, W., Zhang, W., & Jiang, Q. (2023). An Emotion-Based Personalized Music Recommendation Framework for Emotion Improvement. *Information Processing & Management*, 60(3), 103256.

CONFERENCE PRESENTATIONS

1. **Liu, Z.**, Liu, Y., Yan, Z., Yi, Z., & Zhang, W. (2023). *Visualization Performance Evaluation of Analyst Reports*. In The 16th China Summer Workshop on Information Management (CSWIM), Changsha.
2. Liu, Y., **Liu, Z.**, Zhang, W. (2023). *Integrating the IPO Roadshow Performance for Companies' Business Success Prediction*. In The 8th International Conference on Smart Finance (ICSF), Dubai.
3. Zhang, W., **Liu, Z.**, Liu, Y., Yan, Z., & Yi, Z. (2023). *The Power of Visualization on Making High-Quality Business Analytical Reports: A Multi-Dimensional Analysis*. In INFORMS Annual Meeting 2023, Phoenix.

PAPERS IN PREPARATION

1. A Fusion Method to Predict IPO Success Incorporating CEO's Road Show Performance. Targeted Journal: *INFORMS Journal on Computing*. With Liu, Y. and Zhang W.
2. How Physicians Gain Trust through Photos? A Multi-Dimensional Study on Impression Management in Online Healthcare Consultation. With Wang, X., Huang, T., Zhang, W.

RESEARCH EXPERIENCE

Idea Plagiarism in Short Videos: A Semantic-based Multi-model Method

Sept. 2023 - Present

Student Researcher, Advised by Assoc. Prof. Wenping Zhang, Renmin Information School

- Develop a two-stage framework for idea plagiarism detection in short videos
- Extract semantic features as unique identifiers for identifying suspicious video
- Utilize multi-model techniques to compare semantic similarities between text, image and video data for idea plagiarism detection

Multi-dimensional evaluation for analytical reports

Oct. 2022 - Present

Team Leader, Advised by Prof. Zhihong Yi, Renmin Business School, and Assoc. Prof. Wenping Zhang, Renmin Information School

- Construct an innovative model to evaluate the information quality of analytical reports
- Develop algorithms of text analysis and image understanding to calculate some of the indicators; establish empirical study on real data from Wind to verify the effectiveness of our model
- Lead a 5-person team at the Information School in collaboration with students from the Business School
- Presented selected results of visualization performance evaluation at *CSWIM 2023* and *INFORMS Annual Meeting 2023*

Incorporate latent content in video for business performance evaluation

Oct. 2022 – Present

Research Assistant, Advised by Assoc. Prof. Wenping Zhang, Renmin Information School

- Use hidden information from speakers' micro-expressions, body language, and speech mode through videos to predict business performance
- Presented initial results at *ICSF2023*

Multi-dimensional study on online healthcare consultation

Aug. 2022 - Present

Research Assistant, Advised by Assoc. Prof. Wenping Zhang, Renmin Information School, and Prof. Huang Tao, Peking University

- Conduct a systematic investigation into the impact of physicians' photographs on patients' online decision-making process, namely search, selection, and evaluation
- Construct a four-dimensional facial impression model and verify the effectiveness of our proposed model with the data from one of the largest online healthcare platforms

Music recommendation for emotion improvement

Apr. 2022 - Jan. 2023

Student Researcher, Advised by Assoc. Prof. Wenping Zhang, Renmin Information School

- Designed an LSTM-based model to select the most suitable and helpful music based on users' moods in the previous period and current emotion stimuli
- Applied empirical experiments and user studies to prove that our novel framework was precise and helpful
- Published in *Information Processing and Management* as the First Author

Short video understanding based on data augmentation

Nov. 2020 - May 2021

Student Researcher, Advised by Prof. Wei Xu and Assoc. Prof. Wenping Zhang, Renmin Information School

- Drew inspiration from text and image data augmentation and proposed a new video data augmentation method to better identify the features of short videos
- Succeeded in delivering improvement of 2% in the accuracy of short video understanding

WORK EXPERIENCE

Aldelo | Intern

Beijing, China

Machine Learning Engineer

July 2021 - Sept. 2021

- Applied Mask R-CNN model to food category identification
- Constructed and maintained a food database that promoted model updates and accuracy improvements

TEACHING ASSISTANTSHIP

- Finance & Big Data Practice - 2022 Spring: Graduate Level (MBA)
- Business Data Analytics - 2022 Fall: Graduate Level (Master)
- Freshman Seminar - 2023 Spring: Undergraduate level (Bachelor)

AWARDS AND HONORS

Renmin University of China

- Excellent Students Awards (25%), the First Scholarship for Excellent Academic Performance (2021-2023)(3%), and the Third Scholarship for Excellent Academic Performance (2018)(20%)
- Honorable Mention in Mathematical Contest in Modeling (2020), Second Prize in Beijing in China Undergraduate Mathematical Contest in Modeling (2019)

COMMUNITY AND LEADERSHIP ACTIVITIES

Renmin University of China

Beijing, China

- Counselor for undergraduate freshmen. Provided them with academic and psychological support (Sept. 2021 - June 2023)
- Vice Minister of Liaison Department, Student Union of the Information School. Responsible for expanding inter-school communication and promoting cooperation with companies. (Sept. 2018 - June. 2019)
- Vice Minister of Design Department, Information Monthly Magazine. Responsible for the layout design of the monthly magazine. (Sept. 2018 - June. 2019)

ADDITIONAL INFORMATION

Computer Skills: Python (proficient), MySQL, Matlab, R, and Stata

Languages: Mandarin (native speaker), English (advanced)

Interests: Fiction writing, Psychology (passed the comprehensive examination for psychological counselors and obtained a certificate in 2023), Swimming, Travelling, and Basketball

Standardized Tests: TOEFL: 106; GMAT: 710