

# ZHIYUAN LIU

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## EDUCATION

### Renmin University of China

Beijing, China

Master in Management Science and Engineering

Sept. 2021 - June 2024 (expected)

- GPA: 3.95/4.00
- TOEFL: 106; GMAT: 710
- Relevant Coursework: Research Methodology for Management, Modern Statistic Methods, Social Networks Analysis, Business Data Analytics, Knowledge & Innovation Management, Models and Decision

### Renmin University of China

Beijing, China

Bachelor in Computer Science and Technology

Sept. 2017 - June 2021

- GPA: 3.57/4.00
- Minor in Finance
- Relevant Coursework: Advanced Algebra, Mathematical Analysis, Algorithmic Analysis and Design, Big Data Analysis and Finance, Statistics, Operations Research, Econometrics, Finance, Affective Psychology

### Girton College, University of Cambridge

Cambridge, UK

Summer Programme

Aug. 2019 - Sept. 2019

## RESEARCH INTEREST

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

## 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.
2. **Liu, Z.**, Liu, Y., Yan, Z., Yi, Z., and Zhang, W. (2023) "Visualization performance evaluation of analyst reports", *The 16th China Summer Workshop on Information Management (CSWIM)*.
3. Liu, Y., **Liu, Z.**, Zhang, W. (2023) "Integrating the IPO roadshow performance for companies' business success prediction", *The 8th International Conference on Smart Finance (ICSF)*.

## PAPERS IN PREPARATION

1. Is information standardization helpful in communication? Evidence from online healthcare consultation. Under review at *Internet Research*. With Wang, X., Huang, T., Zhang, W., Zeng, Q.
2. 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.
3. Does appearance matter for physicians? A multi-dimensional study on online healthcare consultation. With Wang, X., Huang, T., Zhang, W.

## RESEARCH EXPERIENCE

### 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

- Constructed an innovative model to evaluate the information quality of analytical reports.
- Developed algorithms of text analysis and image understanding to calculate some of the indicators. Established empirical study on real data from Wind to verify the effectiveness of our model.
- Led a 5-person research team of the School of Information in collaboration with students from the Business School.
- Some results of visualization performance evaluation presented at *CSWIM2023*.

### Incorporate latent content in video for business performance evaluation

Oct. 2022 - Present

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

- Used hidden information from speakers' micro-expressions, body language, and speech mode through videos to predict business performance.
- Initial results presented 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

- Conducted a systematic investigation into the impacts of physician appearance on online patients' whole decision-making processes, namely search, selection, and evaluation.
- Constructed a four-dimensional facial impression model and verified the effectiveness of our proposed model on the data from one of the largest online healthcare platforms.

### Music recommendation for emotion improvement

June 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' mood in the previous period and current emotion stimulus.
- Applied empirical experiments and user studies to prove that our novel framework is precise and helpful.
- Has been published on *Journal of Information Processing and Management* as the First Author

### Clickbait detection based on knowledge graph

Sept. 2021 - Mar. 2022

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

- Constructed knowledge graphs using news titles and content, and used GNN to detect clickbait.
- Generated objective abstract automatically, then conducted a semantic comparison with the given title to infer clickbait.

### 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.
- Brought a certain improvement of 2% in the accuracy of short video understanding.

## WORK EXPERIENCE

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### Aldelo

Intern, Computer Programmer

Beijing, China

July 2021 - Sept. 2021

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

## AWARDS AND HONORS

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### Renmin University of China

- Excellent Students Awards, the First Scholarship for Excellent Academic Performance (2021-2022), and the Third Scholarship for Excellent Academic Performance (2018)
- Honorable Mention in Mathematical Contest in Modeling (2020), Second Prize in Beijing in China Undergraduate Mathematical Contest in Modeling (2019)

## ADDITIONAL INFORMATION

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### Additional Professional and Extracurricular Experiences

- Counselor for undergraduate freshmen. Provide them with academic and psychological support during the first two years (Sept. 2021 - June 2023)
- Tutor in the course of business data analytics (Sept. 2022 - Jan. 2023)

### Computer Skills

- Python (proficient), MySQL, Matlab, R, and Stata

### Interests

- Fiction writing, Psychology (passed the comprehensive examination for basic training of psychological counselors of the Institute of Psychology of the Chinese Academy of Sciences and obtained a certificate in 2023), Swimming, Travelling, and Basketball