

Yujia Wang

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Education

China University of Geosciences (Beijing)
B.S. in Information Management and Information Systems

Sep. 2021 – Jun. 2025

- Overall Average Score: 87.74/100
- Coursework: Data Structure, Operations Research, Complex Network Modeling and Analysis, Information Economics, Principle of Database Systems, Information Management System, Data Analysis Tools and Methods A, Information Security Management, Data Mining, Data Science Algorithms, Financial Data Analysis and Quantitative Trading System, etc.

Publications

[1] Preparation of non-noble metal catalyst $\text{FeCo}_2\text{O}_4/\text{MoS}_2$ for producing hydrogen and oxygen by electrochemical decomposition of water

Zhouqian Chen*, Zongmei Li*, Manyi Zhang, **Yujia Wang**, Siang Zhang, Yuanyuan Cheng.

Inorganics 2024, 12(8), 229; <https://doi.org/10.3390/inorganics12080229>

Research & Work Experience

Research Assistant, China University of Geosciences (Beijing)
Department of Management Science and Engineering

Jun. 2025 – present

Advised by Prof. Qing Tu

- Designed and implemented data pipelines for collecting, normalizing, and analyzing time series financial data; applied techniques such as missing-value imputation, rolling-window statistics, and feature engineering to enable downstream modeling and forecasting

Market Research Internship, Lanzhou Hemu Culture Co., Ltd.

Dec. 2024 – Feb. 2025

- Conducted detailed market research on tea culture courses, including competitor analysis, consumer preference surveys, and regional demand assessments, and produced customer profiling reports that informed curriculum refinement and promotional strategy development
- Assisted in planning and delivering tea art events for corporate clients and community groups, coordinating venue setup, program flow, and participant engagement activities, which strengthened brand visibility and promoted traditional culture appreciation

Data Analysis Internship, Sichuan Zhongding System Integration Co., Ltd.

Jul. 2024 – Sep. 2024

- Analyzed large-scale cybersecurity log data using SQL and Python, built automated ETL workflows to extract key security events, developed operational metrics and contributed data-driven insights to threat intelligence reports
- Applied clustering algorithms, anomaly detection techniques, and multi-step funnel analysis to identify suspicious network behavior patterns, supporting incident triage, risk assessment, and early threat detection

Student Researcher, China University of Geosciences (Beijing)
National Undergraduate Research Program

Dec. 2023 – Aug. 2024

Advised by Prof. Yuanyuan Cheng

- Played a primary role in the XPS characterization of $\text{FeCo}_2\text{O}_4/\text{MoS}_2$ composites for an SCI-published study; completed peak deconvolution for all core-level spectra and interpreted oxidation-state evolution to elucidate electron-transfer behavior at the heterointerface
- Produced all high-resolution XPS plots in Figure 3 by performing rigorous binding-energy calibration, background subtraction, peak assignment, and spectral visualization in Origin, directly supporting the mechanistic analysis presented in Section 2.3

Research Assistant, Peking University & University of California, San Francisco
Moon (Sleep) Lab for Artificial Intelligence Technology (MoonLAIT)

May 2024 – Jul. 2024

Advised by Prof. Yue Leng

- Orchestrated data operations for a multicenter, multidimensional sleep disorder cohort study, with primary responsibility for the acquisition, coordination, and standardized construction of a clinical biobank

- The resulting high-quality dataset established the foundation for exploring the correlation between sleep architecture and neurodegenerative diseases, dramatically accelerating the project's research progress

Projects & Competition

LLM-Based Autonomous Stock Trading Agent	Nov. 2024 – Jun. 2025
<i>Capstone Project</i>	[PDF] [Code]
<ul style="list-style-type: none"> Designed and implemented a 6-module LLM Agent framework for financial decisions, featuring memory, reflection, and portfolio management Constructed a multi-source dataset (TSLA/AMZN) with 407 trading days, integrating price data, news, earnings reports, and sentiment analysis Achieved approximately 20% positive returns on TSLA with effective drawdown control, outperforming the Buy & Hold baseline. The thesis was awarded <i>Outstanding Graduation Thesis</i> 	
Market-Oriented Brand development for Traditional Food Products	Nov. 2023 - May 2024
<i>2024 National Collegiate Business Elite Challenge: Brand Planning Competition National Finals Global Brand Planning Competition China Selection Round (Singapore)</i>	
<ul style="list-style-type: none"> "Yongshugong" brand research and positioning, brand core value analysis and marketing campaign design won the <i>National First Prize</i> 	
A Market Survey and Analysis of Short Video Users in Beijing	Dec. 2023 - Mar. 2024
<i>The 14th CP Group Cup National College Student Market Research and Analysis Competition</i>	
<ul style="list-style-type: none"> In-depth study of how the Shakeology platform drives the demand for cultural and tourism consumption, and analysis of consumer profiles and the behavioral characteristics of their consumption based on the survey of satisfaction with the use of Shakeology Cultural and tourism short video review mining, data cleaning and processing of lexicon and LDA theme recognition to refine the theme and elements. Using K-Modes clustering to refine consumer profiles and multilayer perceptron to predict user satisfaction with Shakeology usage based on respondent data won the <i>National Third Prize</i> 	
Exploration of the Commercialization of Geo-Educational Tourism Services	Jun. 2023 – Aug. 2024
<i>The 9th & 10th China International College Students' "Internet+" Innovation and Entrepreneurship Competition</i>	
<ul style="list-style-type: none"> Product development, to create innovative, personalized, professional (TGM) geology study services, relying on the school's geological resources to develop core products - study services and product packages. Upstream and downstream linkage, independently creating an "integrated" business model at maturity. The practice results were reported more than 20 times by various platforms, the growth of tourists in the year of 2023 exceeded 10,000, and the revenue of the catering and B&B industry in the practice site increased by 16.8% year-on-year. Awarded the <i>Beijing Municipal Third Prize twice</i> as the team leader, including the <i>"Top 100 Innovative Teams"</i> honor in the Beijing College Student Innovation Entrepreneurship Competition, along with the <i>Outstanding and Most Influential Project</i> awards at the China University of Geosciences (Beijing) competition. 	
Analysis of Consumer Demand for Ready-to-Cook Dishes in Beijing (C-end)	Nov. 2022 – May 2023
<i>The 13th CP Group Cup National College Student Market Research and Analysis Competition</i>	
<ul style="list-style-type: none"> Responsible for consumer demand mining, collecting e-commerce platform reviews and LDA theme identification to refine product demand primary and secondary indicators and elements. Data cleansing and quality control, descriptive statistics based on user needs, K-Modes clustering, analyzing and writing product development and marketing recommendations for the Prepared Vegetables Market Obtained target consumer profiles and their needs, put forward relevant product innovation and marketing suggestions, and the output report won <i>The Third Prize in Beijing</i>. 	

Skills

AI/ML: PyTorch, TensorFlow, Scikit-learn

Languages/Tools: Python, SQL, Java, Stata, SPSS, R, Git, LaTeX, HTML/CSS, Origin