Zhang Yifei

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Education

Department of Computer Science and Technology — Nanjing University
B.Sc. in Computer Science and Technology (FinTech) ***Top Talent Class*** — *Sep 2020 – Jun 2024*

School of Management & Engineering — Nanjing University
M.Sc. in Financial Engineering and FinTech — *Sep 2024 – Jun 2027*
Supervisor: *Prof.* ***Honghai Yu***

INTERN EXPERIENCE

School of Data Science — The Chinese University of Hong Kong, Shenzhen
Research intern advised by Prof. ***Benyou Wang*** — *Jun 2024 – Mar 2025*

- Following **Prof. Benyou Wang** to conduct research on financial LLMs and Agent-based social simulations .

Research & Projects

UCFE Benchmark — Aug 2024 – Jan 2025
Advised by Prof. Benyou Wang, Prof. Honghai Yu and Jimin Huang — *Project Leader*

- Designed and developed the **UCFE Benchmark**, an innovative user-centric financial expertise evaluation framework, addressing the limitations of existing benchmarks **lacking dynamic interaction and multi-turn dialogue**, to test LLMs' capabilities in real-world financial tasks.
- Led a user survey with 804 participants, gathering feedback on financial task requirements, and constructed a dataset with 330 entries and 17 task types, supporting zero-shot and few-shot multi-turn dialogue evaluation, enhancing the comprehensiveness of the assessment.
- Utilized **GPT-4o** as a user simulator and employed the **LLM-AS-JUDGE** method to evaluate the capabilities of 11 LLMs, achieving high consistency with human preferences (Pearson correlation coefficient of 0.78), validating the reliability of the evaluation approach.

TwinMarket — Oct 2024 – Mar 2025
Advised by Prof. Benyou Wang, Prof. Honghai Yu — *Project Leader*

- Led the development of **TwinMarket**, an innovative multi-agent framework based on the BDI framework, utilizing LLMs to model investor behavior and social media interactions in financial markets, exploring the connection between individual behavior and emergent market phenomena.
- Developed a scalable market simulation supporting **over 1,000 agents**, successfully replicating key financial phenomena (e.g., fat-tailed returns, volatility clustering), and emergent complex social dynamics such as information cascades and the rise of opinion leaders, achieving high correlation with real -world markets.

Publications

UCFE: A User-Centric Financial Expertise Benchmark for Large Language Models
NAACL Findings 2025
Yuzhe Yang*, **Yifei Zhang***, Yan Hu*, Yilin Guo, Ruoli Gan, Yueru He, Mingcong Lei, Xiao Zhang, Haining Wang, Qianqian Xie, Jimin Huang, Honghai Yu, and Benyou Wang *arXiv preprint 2410.14059*

TwinMarket: A Scalable Behavioral and Social Simulation for Financial Markets
Best Paper Award in Financial AI @ ICLR 2025 *& selected for* ***oral*** *presentation at* ***ICLR 2025***
Yuzhe Yang*, **Yifei Zhang***, Minghao Wu*, Kaidi Zhang, Yunmiao Zhang, Honghai Yu, Yan Hu, and Benyou Wang *arXiv preprint 2502.01506*

Honors and Awards (Selected)

People's Scholarship of Nanjing University	*Oct 2021 & Nov 2022*
Elite Scholarship, **Top Talent Class** of Nanjing University (**top 30%**)	*Nov 2021*
Excellence Scholarship, **Top Talent Class** of Nanjing University (**top 15%**)	*Dec 2023*
Second Prize, Third "Xueshi Cup" Academic Paper Competition of Nanjing University (**top 15%**)	*May 2024*