

YUHE WU(吴宇赫)



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EDUCATION

Hong Kong University of Science and Technology (Guangzhou) , Ph.D. in Fintech (Incoming)	2026.09–Present
Dongbei University of Finance and Economics , Bachelor in Economic Statistics	2022.09–2026.06

A BRIEF INTRODUCTION

I am an undergraduate student in Economic Statistics at Dongbei University of Finance and Economics (DUFE), supervised by Prof. Zhuang Liu. I will be joining the **Hong Kong University of Science and Technology (Guangzhou)** as a **Ph.D. student in Fall 2026**, supervised by Prof. Guang Zhang. My research focuses on **Large Language Models (LLMs) in Finance and Social Sciences**, spanning LLM evaluation, LLM self-evolution, and agent cognition. I have published papers at venues including **ACL 2026**, **EMNLP 2026**, **KDD 2025**, and **Annals of Operations Research**, with additional manuscripts under review at **NeurIPS 2026**, **KDD 2026**, **AAAI 2027**. I also serve as a reviewer for leading venues such as **ACL**, **KDD**, **NeurIPS**, **AAAI**, and **IJOC**.

RESEARCH PUBLICATIONS¹

LLM Capabilities & Evaluation

Benchmarks keep multiplying, yet two basic questions remain open: what capabilities do LLMs actually need, and what kind of evaluation can guide models toward them. Our work treats evaluation as diagnosis rather than scoring. PRISM decomposes hallucinations into error types across generation stages and finds inherent trade-offs among mitigations. BizCompass tests whether disciplinary knowledge translates into performance in applied business roles. We further show that agent decision coherence degrades nonlinearly with structural complexity, revealing a clear cognitive boundary, and that in multi-turn conversation models take a one-sided account as the whole story, a failure we term narrative captivity and trace to preference optimization.

- **Yuhe Wu**, Guang Zhang, Zhuang Liu, et al. *PRISM: Probing Reasoning, Instruction, and Source Memory in LLM Hallucinations*. In **ACL 2026 Main Conference** (CCF-A, CORE A*).
- Jianing Hao*, **Yuhe Wu***, Yuanjian Xu*, Guang Zhang, et al. *BizCompass: Benchmarking the Reasoning Capabilities of LLMs in Business Knowledge and Applications*. In **ACL 2026 Findings** (CCF-A, CORE A*; *Equal contribution).
- **Yuhe Wu**, Guang Zhang, Zhuang Liu, et al. *Caught in the Story: Narrative Captivity in Multi-turn LLMs Conversation*. In **EMNLP 2026 Findings** (CCF-B, CORE A).
- **Yuhe Wu**, Guang Zhang, Zhuang Liu, et al. *The Cognitive Boundary of Generative Agents: Economic Coherence under Structural Complexity*. **Under review at Management Science** (UTD24, FT50).

LLM in Finance & Social Sciences

General capability does not automatically become domain value: whether in mathematical reasoning, simulating human decisions, or generating propagation networks, what pushes a model toward its ceiling is not larger scale but the right supervision signal. COR² rewards the structure of an optimization model rather than its objective value, cutting reasoning cost by nearly half without losing accuracy. Joneses supervises latent utility states rather than response style, and repairing individual decision mechanisms shifts macro-level simulation outcomes. CasT² conditions on root content and generates complete cascade trees rather than flat event sequences. BizSage lets a multi-agent framework evolve itself for reliable business research. On the measurement side, we preserve the full distribution of textual evidence instead of collapsing it into labels, enabling calibrated measurement of public values.

- Jiaxin Liu*, **Yuhe Wu***, Guang Zhang, et al. *Keeping Up with the Joneses in Silicon: Mechanism Alignment for Socially Embedded Decision Making*. In **EMNLP 2026 Main Conference** (CCF-B, CORE A; *Equal contribution).
- **Yuhe Wu**, Guang Zhang, et al. *BizSage: A Self-Evolving Multi-Agent Framework for Business Research with Efficient Knowledge Retrieval*. In **EMNLP 2026 Findings** (CCF-B, CORE A).

¹ ● Published; ● Under review; ● Ongoing

- Guanyu Wang^{*}, **Yuhe Wu^{*}**, Zhaonan Wang. *Beyond When: How Root Content Propagates as Information Cascade Trees*. **Under review at NeurIPS 2026** (CCF-A, CORE A^{*}; ^{*}Equal contribution).
- **Yuhe Wu**, Guang Zhang, et al. *Quantifying Public Value Orientations: A Distribution-Aware Framework for Computational Social Science*. **Under review at KDD 2026** (CCF-A, CORE A^{*}).
- **Yuhe Wu**, Guang Zhang, et al. *Spend Reasoning Where It Counts: Concise LLM Operations Research Modeling*. **Under review at AAAI 2027** (CCF-A, CORE A^{*}).

Applied AI & Forecasting

Predictability in the real world is never uniform: it hides at different time scales, in different moments of the distribution, and in uncertainty from different sources, so forecasting begins with decomposition. PolluVCCT separates pollution signals by time scale for robust forecasts across climate zones. Rethinking Risk Forecasting supervises selected moments of the return distribution with financial news, capturing its full distributional impact rather than direction alone. We further decompose uncertainty into epistemic and aleatoric components to guide the adaptation of time series foundation models to finance, and combine Bayesian deep learning with explainable AI so that uncertainty explicitly enters financial decisions.

- **Yuhe Wu**, Zhuang Liu, et al. *Enhancing Financial Decision-Making under Cyber Threats: A Dual-Branch Framework Integrating Bayesian Deep Learning and Explainable AI*. In **Annals of Operations Research** (ABS 3, JCR Q1).
- **Yuhe Wu**, Yuran Chen, Xinyue Su, Zhuang Liu. *PolluVCCT: Multi-Scale Hybrid Learning for Robust Air Pollution Forecasting Across Diverse Climate Zones*. In **KDD-UMC 2025** (CCF-A, CORE A^{*}).
- **Yuhe Wu**, Guang Zhang, et al. *Rethinking Risk Forecasting from Financial News: Distributional Supervision Beyond Point Predictions*. **Target: ACL 2027** (CCF-A, CORE A^{*}).
- **Yuhe Wu**, et al. *Bridging the Financial Domain Adaptation Gap: Uncertainty-Guided Progressive Adaptation of Time Series Foundation Models*. **Target: Decision Support Systems** (ABS 3, JCR Q1).

RESEARCH EXPERIENCE

Fintech Thrust, HKUST(GZ) , Research Assistant, Supervised by Prof. Guang Zhang	Jun 2025 – Aug 2026
National Accounting Center, DUFE , Group Core Member, Supervised by Prof. Xu Qiang	Jan 2025 – Jul 2026
Fintech Lab, DUFE , Group Leader, Supervised by Prof. Zhuang Liu	Mar 2024 – Jul 2026

COMPETITION & GRANTS

• Top 100, ICBC Cup National Fintech Innovation Competition	2025
• National Second Prize, 9th Financial Innovation & Entrepreneurship Competition	2024
• National Third Prize, 10th Student Statistical Modeling Competition	2024
• Core Member, Liaoning Marine Economy Study (5th National Economic Census Project)	2024
• Core Member, Text–Price Correlation in Food Industry (Liaoning Edu. Dept. Innovation Grant)	2024

HONORS & AWARDS

• ACL 2026 Diversity & Inclusion Grant (TOP 1%)	2026
• KDD-25 Undergraduate Scholarship (TOP 1%)	2025
• Dashang Group Academic Research Scholarship (TOP 1%)	2025
• Excellent Innovation and Entrepreneurship Team Scholarship (TOP 1%)	2025
• Advanced Individual in Academic Competitions (TOP 1%)	2025
• First-Class Scholarship (TOP 2%)	2023 & 2024

SKILLS

Machine Learning: I am well-versed in modern generative models, LLMs, and machine learning. I have extensive experience with DeepSeek R1, Qwen, and Llama series, with expertise in supervised fine-tuning (SFT) and RLHF.

Statistical & Econometric Analysis: I am proficient in econometric modeling using SPSS, Stata, SAS, and R, and use Python and PyTorch for data science and deep learning research.

Research Tools: I use $\text{\LaTeX}$ for academic typesetting and am experienced with Linux, Conda, and visualization tools including Origin and Visio.