Yuzhe (Toby) Yang

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Short Bio

Yuzhe (Toby) Yang is a final-year undergraduate student at The Chinese University of Hong Kong, Shenzhen. His research focuses on building reliable and trustworthy AI systems that bridge the gap between machines and the real world. His interests include (vision) language models, interactive agents, and model interpretability. He aims to improve the robustness, alignment, and transparency of AI systems through grounded reasoning, world modeling, and the analysis of internal mechanisms in large language models.

Education

| University of California, Santa Barbara | 2025.06 – Present |
|---|------------------------|
| Visiting Student | Santa Barbara, CA, USA |
| The Chinese University of Hong Kong, Shenzhen | 2021.09 – 2025.05 |
| B.Eng. in Computer Science & Engineering | Shenzhen, China |

Research Experiences

| CUHK-Shenzhen NLP Group Undergraduate Research Assistant (Advisors: Benyou Wang, Yan Hu) Topic: Multi-Agent System [C3], Human-AI Interaction [C2], Trustworthy NLP [P2] | 2024.06 – Present Shenzhen, China |
|--|--------------------------------------|
| School of Management & Engineering, Nanjing University Undergraduate Research Assistant (Advisor: Honghai Yu) Topic: AI-driven Social and Economic Simulation [C3] | 2024.08 – 2025.01 Nanjing, China |
| TheFinAI Researcher (Advisors: Jimin Huang, Qianqian Xie) Topic: Financial (Vision) Language Model [P1] | 2024.06 – 2024.10 Remote |
| School of Data Science, CUHK-Shenzhen Undergraduate Research Assistant (Advisor: Jianfeng Mao) Topic: Spatial-Temporal Data Mining [P3, J1] | 2023.08 – 2024.06 Shenzhen, China |

Publications

(† indicates equal contribution)

Conference & Workshop Papers

- C1. Wu, J., Chen, S., Tang, J., **Yuzhe Yang**, Chen, Y., Wang, L., Lin, S., Wang, Z., Chen, W. & Tian, Z. FDPT: Federated Discrete Prompt Tuning for Black-Box Visual-Language Models in Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV) (Hawaii, USA, Oct. 2025).
- C2. **Yuzhe Yang**[†], Zhang[†], Y., Hu[†], Y., Guo, Y., Gan, R., et al. UCFE: A User-Centric Financial Expertise Benchmark for Large Language Models in Findings of the Association for Computational Linguistics: NAACL 2025 (Albuquerque, New Mexico, Apr. 2025). https://aclanthology.org/2025.findings-naacl.300/.
- C3. Yuzhe Yang[†], Zhang[†], Y., Wu[†], M., Zhang, K., Zhang, Y., Yu, H., Hu, Y. & Wang, B. *TwinMarket: A Scalable Behavioral and Social Simulation for Financial Markets* 2025. arXiv: 2502.01506 [cs.CE]. https://arxiv.org/abs/2502.01506.

Best Paper Award, Travel Grant Award (ICLR 2025 Workshop on Advances in Financial AI).

Journal Papers

J1. Li, C., Qi, X., **Yuzhe Yang**, Zeng, Z., Zhang, L. & Mao, J. FAST-CA: Fusion-based Adaptive Spatial-Temporal Learning with Coupled Attention for airport network delay propagation prediction. *Information Fusion* **107**, 102326. https://www.sciencedirect.com/science/article/pii/S1566253524001040 (2024).

Preprints & Under Review

- P1. Huang, J., Xiao, M., Li, D., Jiang, Z., **Yuzhe Yang**, et al. Open-FinLLMs: Open Multimodal Large Language Models for Financial Applications 2025. arXiv: 2408.11878 [cs.CL]. https://arxiv.org/abs/2408.11878.
- P2. Li, Z., Wang, X., **Yuzhe Yang**, Yao, Z., Xiong, H. & Du, M. Feature Extraction and Steering for Enhanced Chain-of-Thought Reasoning in Language Models 2025. arXiv: 2505.15634 [cs.CL]. https://arxiv.org/abs/2505.15634.
- P3. Li, C., Lei, M., Wu, J., **Yuzhe Yang**, Pan, Z., Qian, X. & Mao, J. Integrative Mean-Field Epidemic Model and Adaptive Graph Learning for Network-wide Delay Propagation Dynamics Prediction 2024.
- P4. Wu, J., Chen, S., **Yuzhe Yang**, Li, Y., Hou, S., Jing, R., Wang, Z., Chen, W. & Tian, Z. FedDTPT: Federated Discrete and Transferable Prompt Tuning for Black-Box Large Language Models 2024. arXiv: 2411.00985 [cs.CL]. https://arxiv.org/abs/2411.00985.

Awards

| Best Paper Award (ICLR 2025 Workshop on Advances in Financial AI) | 2025 |
|---|------------|
| Travel Grant Award (ICLR 2025 Workshop on Advances in Financial AI) | 2025 |
| Kaggle Silver Medal (AI Mathematical Olympiad - Progress Prize 2) | 2025 |
| Undergraduate Research Award (CUHK-Shenzhen) | 2024, 2025 |
| Outstanding College Contribution Award (CUHK-Shenzhen) | 2022 |

Presentations

TwinMarket: A Scalable Behavioral and Social Simulation for Financial Markets

| Guest lecture for CSC6052, Spring 2025, CUHK-Shenzhen | 2025.04 |
|---|---------|
| Contributed talk at the ICLR 2025 Workshop, Singapore | 2025.04 |
| • Invited talk at the Wisemodel Open-source Series (Virtual) | 2025.05 |

Technical Skills

Programming Languages: Python, C/C++, HTML/CSS

Developer Tools: Pytorch, Transformers, LangChain, Faiss, Git, Slurm

Services

Reviewer: IJCAI 2025, ICLR 2025 Workshop, ACL 2025 SRW

Organizer: Reading Seminar at CUHK-Shenzhen