

# JIAXI YANG

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## AREA OF INTEREST

Trustworthy AI, LLMs, Federated Learning, Data Valuation, Network Economics, Machine Unlearning

## EDUCATION

<b>The Pennsylvania State University</b>	<i>2024 - now</i>
Ph.D. in Informatics	
<b>University of British Columbia</b>	<i>2022 - 2023</i>
Research Intern   Supervised by Prof. <i>Xiaoxiao Li</i>	
<b>University of Electronic Science and Technology of China</b>	<i>2021 - 2024</i>
M.S. in Computer Science	
GPA: 3.5/4.0   Supervised by Prof. <i>Sheng Cao</i>	
<b>Jiangxi University of Finance and Economics</b>	<i>2017 - 2021</i>
B.Eng. in Software Engineering	
GPA: 91.5/100 <b><i>Ranking First</i></b>	

## PUBLICATIONS

<b>Boosting E-commerce Content Diversity: A Graph-based RAG Approach with User Reviews</b>	<i>2025</i>
<b>Jiaxi Yang*</b> , Yiling Jia*, Carl Yang, Yi Liang, Lu Lin	
<i>ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD, 2025)</i>	
<b>GMValuator: Similarity-based Data Valuation for Generative Models</b>	<i>2024</i>
<b>Jiaxi Yang*</b> , Wenlong Deng*, Benlin Liu, Yangsibo Huang, James Zou, Xiaoxiao Li	
<i>The International Conference on Learning Representations (ICLR, 2025)</i>	
<b>A Survey of Federated Unlearning: A Taxonomy, Challenges and Future Directions</b>	<i>2025</i>
Yang Zhao*, <b>Jiaxi Yang*</b> (*Equal Contribution), Yiling Tao, Lixu Wang, Xiaoxiao Li, Dusit Niyato	
<i>IEEE Network</i>	
<b>Unlearning for Federated Online Learning to Rank: A Reproducibility Study</b>	<i>2025</i>
Yiling Tao, Shuyi Wang, <b>Jiaxi Yang</b> , Guido Zuccon	
<i>ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR, 2025)</i>	
<b>Portfolio-Based Incentive Mechanism Design for Cross-Device Federated Learning</b>	<i>2024</i>
<b>Jiaxi Yang</b> , Sheng Cao, Cuifang Zhao, Weina Niu, Li-Chuan Tsai	
<i>IEEE Wireless Communications and Networking Conference (WCNC, 2024)</i>	
<b>Multi-dimensional Data Quick Query for Blockchain-based Federated Learning</b>	<i>2023</i>
<b>Jiaxi Yang</b> , Sheng Cao, Peng Xiangli, Xiong Li, Xiaosong Zhang	
<i>International Conference on Wireless Algorithms, Systems, and Applications (WASA, 2022)</i>	
<b>TranDRL: A Transformer-Driven Deep Reinforcement Learning Enabled Prescriptive Maintenance Framework</b>	<i>2024</i>
Yang Zhao, <b>Jiaxi Yang</b> , Wenbo Wang, Helin Yang, Dusit Niyato	
<i>IEEE Internet of Things Journal (Q1)</i>	

## PREPRINTS

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<b>Topological Structure Learning Should Be A Research Priority for LLM-Based Multi-Agent Systems</b>	2025
<b>Jiaxi Yang*</b> , Mengqi Zhang*, Yiqiao Jin*, Hao Chen, Qingsong Wen, Lu Lin, Yi He, Weijie Xu, James Evans, Jindong Wang	
<a href="https://arxiv.org/pdf/2309.05063.pdf">https://arxiv.org/pdf/2309.05063.pdf</a>	
<b>A Survey on Trustworthiness in Foundation Models for Medical Image Analysis</b>	2024
Congzhen Shi*, Ryan Rezai*, <b>Jiaxi Yang*</b> , Qi Dou, Xiaoxiao Li	
<a href="https://arxiv.org/pdf/2407.15851">https://arxiv.org/pdf/2407.15851</a>	
<b>Federated Learning Incentive Mechanism under Buyers' Auction Market</b>	2023
<b>Jiaxi Yang*</b> , Zihao Guo*, Sheng Cao, Cuifang Zhao, Li-Chuan Tsai	
<a href="https://arxiv.org/pdf/2309.05063.pdf">https://arxiv.org/pdf/2309.05063.pdf</a>	

## PATENTS

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<b>Insurance Compensation Apparatus and Method based on Hybrid Smart Contracts</b>	Granted
<i>China National Intellectual Property Administration (ZL202110835114.8)</i>	
<b>An Incentive Mechanism Method for Decision-Making</b>	Granted
<i>China National Intellectual Property Administration (ZL202110835181.X)</i>	

## PRESENTATIONS & TALKS

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<b>Multi-dimensional Data Quick Query for Blockchain-based Federated Learning</b>	2022
International Conference on Wireless Algorithms, Systems, and Applications (WASA, 2022)	
<b>Data Valuation for Generative Model (Invited Talk)</b>	2023
Annual Symposium of Blockchain Storage and Trade Engineering Laboratory of Sichuan Province	

## AWARDS & HONORS

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<b>The First Prize Scholarship</b> from UESTC	2023
<b>The Third Prize Scholarship</b> from UESTC	2022
<b>The First Prize Scholarship</b> from UESTC	2021
<b>China National Scholarship</b> from Ministry of Education of China (Top 0.2% Nationwide)	2020
<b>Outstanding Graduate</b> from JXUFE	2021
<b>Enterprise Scholarship</b> from Bank of Jiujiang	2019