Xueqi Cheng

Ph.D. Student in Computer Science · Florida State University

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BIOGRAPHY

Xueqi Cheng is a Ph.D. student in Computer Science at Florida State University, advised by Dr. Yushun Dong, and a member of the Responsible AI (RAI) Lab. His research goal is to make AI trustworthy and efficient for real-world use. Earlier in his Ph.D., working with Dr. Tyler Derr at Vanderbilt University, he studied how to make AI reliable, fair, and private on real-world network data. He now carries this goal to large language models and AI agents, so that they are dependable and affordable to deploy. His current research interests include agentic AI (e.g., agent distillation and model routing), LLM compression (e.g., knowledge distillation, pruning, and quantization), and multimodal models. He is also interested in AI for social good and real-world applications of AI, including social network analysis and civil and infrastructure engineering.

EDUCATION

Florida State University
*Doctor of Philosophy (**Ph.D.**) in Computer Science* 2025 – present
- Advisor: Dr. Yushun Dong, Responsible AI (RAI) Lab

Vanderbilt University
*Doctor of Philosophy (**Ph.D.**) in Computer Science (transferred out)* 2023 – 2025
- Advisor: Dr. Tyler Derr, Network and Data Science (NDS) Lab

*Master of Science (**M.S.**) in Systems Engineering* 2021 – 2023

RESEARCH EXPERIENCE

Applied Research, Nokia of America Corporation
Research Intern May 2026 – present
- Research topic: Agent distillation
- Manager: Kelly Wan; Mentor: Dr. Liang Wu

Responsible AI Lab, Florida State University
Ph.D. Student Aug 2025 – present
- Research areas: Agentic AI, LLM compression, multimodal models
- Advisor: Dr. Yushun Dong

Chief Data Office, AT&T Labs
Research Intern Jun 2025 – Aug 2025
- Research topic: Efficient LLM serving for multi-turn dialogues
- Manager: Dr. Divesh Srivastava; Mentors: Dr. Qiong Wu, Dr. Zhengyi Zhou

Network and Data Science Lab, Vanderbilt University
Ph.D. Student Aug 2023 – May 2025
- Research areas: Geometric deep learning, social network analysis, AI for social good
- Advisor: Dr. Tyler Derr

SCHOLARSHIPS & AWARDS

- NeurIPS Top Reviewer — Oct 2026
- NeurIPS Travel Award — Oct 2026
- Naaman Franklin Faile Jr. Graduate Fellowship, Florida State University — Oct 2026
- Osher Lifelong Learning Institute Scholarship, Florida State University — Apr 2026
- WSDM NSF Travel Award — Feb 2026
- CS Student Seminar Best Presentation Runner-Up, Florida State University — Nov 2025
- Naaman Franklin Faile Jr. Graduate Fellowship, Florida State University — Sep 2025
- Engineering Graduate Fellowship, Vanderbilt University — Aug 2023
- IBM PhD Fellowship, Vanderbilt University — Aug 2021

PUBLICATIONS

Conference Papers

* Equal contribution (co-first authors)

[C05] **Adverse Online Social Interactions: A Multi-Level Evolutionary Analysis of Local Patterns, Diffusion, and Community Disruption**
Xueqi Cheng*, Qinwen Ge*, Hamid Karimi, Yushun Dong, Tyler Derr
Proceedings of the 20th ACM International Conference on Web Search and Data Mining (WSDM), 2027 Acceptance rate 15.8% [Paper] [Code]

[C04] **LatentRouter: Can We Choose the Right Multimodal Large Language Model Before Seeing Its Answer?**
Xueqi Cheng, Yushun Dong
The 40th Annual Conference on Neural Information Processing Systems (NeurIPS), 2026 Acceptance rate 25.7% [Paper] [Code]

[C03] **BTS: A Comprehensive Benchmark for Tie Strength Prediction**
Xueqi Cheng, Catherine Yang, Yuying Zhao, Yu Wang, Hamid Karimi, Tyler Derr
Proceedings of the 31st ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2025 Oral · Acceptance rate 22% [Paper] [Code]

[C02] **Edge Classification on Graphs: New Directions in Topological Imbalance**
Xueqi Cheng*, Yu Wang*, Yunchao Liu, Yuying Zhao, Charu C. Aggarwal, Tyler Derr
Proceedings of the 18th ACM International Conference on Web Search and Data Mining (WSDM), 2025 Acceptance rate 17.3% [Paper] [Code]

[C01] **A Topological Perspective on Demystifying GNN-Based Link Prediction Performance**
Yu Wang, Tong Zhao, Yuying Zhao, Yunchao Liu, **Xueqi Cheng**, Neil Shah, Tyler Derr
Proceedings of the 12th International Conference on Learning Representations (ICLR), 2024 Acceptance rate 31% [Paper] [Code]

Journal Papers

Impact factors: 2025 Journal Citation Reports

[J03] **Towards Trustworthy Retrieval Augmented Generation for Large Language Models: A Survey**
Bo Ni, Zheyuan Liu, Yongjia Lei, Leyao Wang, Yuying Zhao, **Xueqi Cheng**, Qingkai Zeng, Xin Luna Dong, Yinglong Xia, Krishnaram Kenthapadi, Ryan Rossi, Franck Dernoncourt, Md Mehrab Tanjim, Nesreen Ahmed, Xiaorui Liu, Wenqi Fan, Erik Blasch, Yu Wang, Meng Jiang, Tyler Derr
ACM Computing Surveys (CSUR), 58(15), 2026 Impact factor 30.4 [Paper] [Code]

[J02] **A Survey on Privacy in Graph Neural Networks: Attacks, Preservation, and Applications**
Yi Zhang, Yuying Zhao, Zhaoqing Li, **Xueqi Cheng**, Yu Wang, Olivera Kotevska, Philip S. Yu, Tyler Derr
IEEE Transactions on Knowledge and Data Engineering (TKDE), 36(12), 2024 Impact factor 10.4 [Paper]

[J01] **Fairness and Diversity in Recommender Systems: A Survey**
Yuying Zhao, Yu Wang, Yunchao Liu, **Xueqi Cheng**, Charu C. Aggarwal, Tyler Derr
ACM Transactions on Intelligent Systems and Technology (TIST), 16(1), 2025 Impact factor 10.7 [Paper]

Workshop and Symposium Papers

[W02] **Edge-Centric Network Analytics**
Xueqi Cheng
Proceedings of the 18th ACM International Conference on Web Search and Data Mining (WSDM), Doctoral Consortium, 2025 [Paper]

[W01] **Urban Bridge Conceptual Design Based on Virtual Reality Graphic Engine**
Xueqi Cheng, Yan Zhang, Sining Lu, Yinqiao Zhu, Wei He
IABSE Conference, Bath 2017: Creativity and Collaboration – Instilling Imagination and Innovation in Structural Design [Paper]

Preprints / In Submission

[P08] **Agents on Edge Devices: Learning to Compress LLMs at Nokia**
Xueqi Cheng*, Jiamu Zhang*, Liang Wu, Kelly Wan, Mayank Darbari, Liangjie Hong
In submission

[P07] **Capability Scaling-Down Laws for LLM Compression**
Xueqi Cheng, Liang Wu, Kelly Wan, Liangjie Hong, Yushun Dong
arXiv preprint arXiv:2610.02462, 2026 [Paper] [Code]

[P06] **HazardWeaver: Scientific Route Selection for Hazard Analysis Agents**
Wangshu Zhu*, **Xueqi Cheng***, Liang Wu, Yushun Dong
arXiv preprint arXiv:2610.03591, 2026 [Paper] [Code]

[P05] **A Nationwide Benchmark for Wildfire Initial Attack Failure Prediction with Public Environmental Data**
Runyang Xu*, **Xueqi Cheng***, Yushun Dong
arXiv preprint arXiv:2606.15529, 2026 [Paper] [Code]

[P04] **SOMA: Efficient Multi-turn LLM Serving via Small Language Model**
Xueqi Cheng, Qiong Wu, Zhengyi Zhou, Xugui Zhou, Tyler Derr, Yushun Dong
arXiv preprint arXiv:2605.11317, 2026 [Paper] [Code]

[P03] **ReAD: Reinforcement-Guided Capability Distillation for Large Language Models**
Xueqi Cheng, Xugui Zhou, Tyler Derr, Yushun Dong
arXiv preprint arXiv:2605.11290, 2026 [Paper] [Code]

[P02] **MISLEADER: Defending against Model Extraction with Ensembles of Distilled Models**
Xueqi Cheng, Minxing Zheng, Shixiang Zhu, Yushun Dong
arXiv preprint arXiv:2506.02362, 2025 [Paper] [Code]

[P01] **Amplifying Your Social Media Presence: Personalized Influential Content Generation with LLMs**
Yuying Zhao, Yu Wang, **Xueqi Cheng**, Anne Marie Tumlin, Yunchao Liu, Damin Xia, Meng Jiang, Tyler Derr
arXiv preprint arXiv:2505.01698, 2025 [Paper] [Code]

OPEN-SOURCE PROJECTS

PyHazards [GitHub] [Website] Jan 2026
A Python framework for AI-powered hazard prediction and risk assessment. It provides a hazard-first API for loading data, building models, running end-to-end experiments, and extending with your own modules.

TALKS

Industry Presentations

[I02] **Efficient Context-dependent Multi-turn LLM Serving** Aug 2025
AT&T Labs

[I01] **Predicting and Interpreting Churn Risks for Broadband Customers** Jul 2025
AT&T Labs

Guest Lectures

[L01] **Introduction to Python/PyG** Oct 2023
CS 4352/5352: Social Network Analysis, Department of Computer Science, Vanderbilt University

TEACHING EXPERIENCE

Vanderbilt University, Department of Computer Science
Teaching Assistant Aug 2023 – May 2025
- CS 4352/5352: Social Network Analysis
- CS 4260: Introduction to Artificial Intelligence
- CS 5892: Project in Data-Centric AI

Vanderbilt University, Department of Civil and Environmental Engineering
Teaching Assistant Aug 2021 – May 2023
- CE 2200: Statics
- CE 3205: Structural Design
- CE 3200: Structural Analysis

MENTORING

Responsible AI Lab, Florida State University
- Hugh Long, M.S. Computer Science; wildfire prediction visualization Fall 2025 – present
- Runyang Xu, B.S. Statistics; wildfire prediction foundation models; next: M.S. Statistics, University of Michigan, Ann Arbor Fall 2025 – present

Network and Data Science Lab, Vanderbilt University
- Qinwen Ge, Ph.D. Computer Science; social network analysis Spring 2025 – Spring 2026
- Bo Ni, Ph.D. Computer Science; trustworthy retrieval-augmented generation Spring 2024 – Spring 2025
- Catherine Yang, M.S. Computer Science; social network analysis; next: Software Engineer, Microsoft Fall 2024 – Spring 2025

SERVICES

- **Organizing:** Publicity Chair, the 5th International Workshop on Machine Learning on Graphs (MLoG) at WSDM'24
- **Conference Reviewer / PC Member:** NeurIPS, ICLR, ICML, KDD, ICWSM, WSDM, AAAI, WWW, SDM, IEEE Big Data, CIKM
- **Journal Reviewer:** Pattern Recognition, ACM Transactions on Knowledge Discovery from Data (TKDD)