Dr. Xin Zheng

Assistant Professor @ RMIT University

Google Scholar
xin.zheng2@rmit.edu.au
zhengxin.cs@gmail.com

Research Interests

Data-centric AI, Automated Graph Machine Learning, AI for Science

Education

- **Monash University, Australia** — *Apr 2021 to Aug 2024*
  Doctor of Philosophy, Information and Technology
- **Dalian University of Technology, China** — *Sep 2017 to Jun 2020*
  Master of Engineering, Information and Communication Engineering — GPA: 3.14/4 (80.98/100)
- **Dalian University of Technology, China** — *Sep 2013 to Jun 2017*
  Bachelor of Engineering, Integrated Circuit and System — GPA: 3.84/4 (90.32/100)

Experience

- **RMIT University** — *Dec 2025 to Present*
  Assistant Professor — Melbourne, Victoria, Australia
- **Griffith University** — *Jun 2024 to Dec 2025*
  Assistant Professor — Gold Coast, Queensland, Australia
- **Griffith University** — *Apr 2023 to Jun 2024*
  Research Assistant — Gold Coast, Queensland, Australia
- **Monash University** — *Jul 2021 to Mar 2022*
  Sessional Teaching Associate — Melbourne, Victoria, Australia
- **AI Lab, Tencent** — *May 2020 to Mar 2021*
  Research Assisstant — Shenzhen, China
- **Institute of Automation, Chinese Academy of Sciences** — *Jan 2018 to Dec 2018*
  Research Assistant — Beijing, China

Selected Research Output

— **First-Author Publications** —

1. **Zheng, X.**, Li, B., Zheng, Y., Zhang, Q., Wang, H., Liang, Y., Liew, A. W. C., & Pan, S. (2025). Test-Time Graph Rebirth For GNN Generalization Under Distribution Shifts. IEEE International Conference on Data Mining (ICDM), 2025. **[Core A*.]**
2. **Zheng, X.**, Huang, W., Zhou, C., Li, M., & Pan, S. (2025). Test-Time Graph Neural Dataset Search With Generative Projection. International Conference on Machine Learning (ICML), 2025. **[Core A*]**
3. **Zheng, X.**, Song, D., Wen, Q., Du, B., & Pan, S. (2024). Online GNN Evaluation Under Test-time Graph Distribution Shifts. International Conference on Learning Representations (ICLR), 2024. **[Spotlight Poster, Core A*]**
4. **Zheng, X.**, Zhang, M., Chen, C., Molaei, S., Zhou, C., & Pan, S. (2023). GNNEvaluator: Evaluating GNN Performance On Unseen Graphs Without Labels. Advances in Neural Information Processing Systems (NeurIPS), 2023. **[Core A*]**
5. **Zheng, X.**, Zhang, M., Chen, C., Nguyen, Q. V. H., Zhu, X., & Pan, S. (2023). Structure-free Graph Condensation: From Large-scale Graphs to Condensed Graph-free Data. Advances in Neural Information Processing Systems (NeurIPS), 2023. **[Spotlight Poster, Core A*]**
6. **Zheng, X.**, Liu, Y., Bao, Z., Fang, M., Hu, X., Liew, A. W. C., & Pan, S. (2023). Towards Data-centric Graph Machine Learning: Review and Outlook. arXiv preprint arXiv:2309.10979.
7. **Zheng, X.**, Zhang, M., Chen, C., Zhang, Q., Zhou, C., & Pan, S. (2023). Auto-HeG: Automated Graph Neural Network on Heterophilic Graphs. Proceedings of the ACM Web Conference (WWW), 2023. **[Core A*]**
8. **Zheng, X.**, Zhang, M., Chen, C., Li, C., Zhou, C., & Pan, S. (2022). Multi-Relational Graph Neural Architecture Search with Fine-grained Message Passing. IEEE International Conference on Data Mining (ICDM), 2022. **[Core A*]**

9. **Zheng, X.**, Liu, Y., Pan, S., Zhang, M., Jin, D., & Yu, P. S. (2022). Graph Neural Networks for Graphs with Heterophily: A Survey. arXiv preprint arXiv:2202.07082. **[#Three-year Cites:** $\sim$ 300**]**
10. **Zheng, X.**, Guo Y., Huang H., Li Y., & He R. (2020). A Survey of Deep Facial Attribute Analysis. International Journal of Computer Vision (IJCV). 2020. **[JCR Q1]**

— Publications with Supervised Student First-Author —

1. Li, B., **Zheng, X.**, Jin, M., Wang, C., & Pan, S. (2025). Test-time GNN Model Evaluation on Dynamic Graphs. IEEE International Conference on Data Mining (ICDM), 2025. **[Core A*]**
2. Wang, Z., Song, Y., Qin, S., Yu, S., Huang, Y., Xuan, Q., & **Zheng, X.** (2025). Data-Free Model Extraction for Black-box Recommender Systems via Graph Convolutions. Neural Information Processing Systems (NeurIPS), 2025. **[Core A*]**
3. Liu, Y., **Zheng, X.**, Li, Y., & Guo, Y. (2025). Test-Time Adaptation on Recommender System with Data-Centric Graph Transformation. International Joint Conference on Artificial Intelligence (IJCAI), 2025. **[Core A*]**
4. Pan, J., Liu, Y., **Zheng, X.**, Zheng, Y., Liew, A. W. C., Li, F., & Pan, S. (2025). A Label-Free Heterophily-Guided Approach for Unsupervised Graph Fraud Detection. In Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2025. **[Core A*]**
5. Li, B., Feng, Y., Jin, M., **Zheng, X.**, Tang, Y., Cherubin, L., Wang, C., Liew, A. W.-C., Lu, Q., Yao, J., Zhang, H., Pan, S., & Zhu, X. (2025). OASIS: Harnessing Diffusion Adversarial Network for Ocean Salinity Imputation using Sparse Drifter Trajectories. ACM International Conference on Information and Knowledge Management (CIKM), 2025. **[Core A]**

— Edited Book —

1. Yuan, S., Malliaros, F., & **Zheng, X.** (Eds.) (2025). Trends and Applications in Knowledge Discovery and Data Mining: PAKDD 2025 Workshops, ADUR, FairPC, GLFM, PM4B and RAFDA, Sydney, NSW, Australia, June 10–13, 2025, Proceedings. Springer. **[Edited Book]**

Research Funding

- **NVIDIA Academic Grant Program**: Principle Investigator (PI), awarded 2025. GPU grant for '*AI-assisted Protein Design*'. Approx. 32,000 hours 8 $\times$ A100 80GB GPU hardware support.
- **NVIDIA Academic Grant Program**: Principle Investigator (PI), awarded 2024. GPU grant for '*Large Language Model related Graph Machine Learning*'. Approx. 16,000 hours A100 40GB GPU hardware support.
- **Australian Research Council (ARC) Discovery Project (DP26)**: Chief Investigator (CI), 2025; submitted to ARC.
- **NSF/CSIRO USA-AUS Collaboration Program**: Invited Participant, 2024.
- **Science Advancing Women's Research Grant**: Chief Investigator (CI), 2025, Griffith University. AUD $4,000.
- **Science ICT Early-Career Staff Grant**: Chief Investigator (CI), 2025, Griffith University.
- **Science ICT CORE A Conference Grant**: Chief Investigator (CI), 2025, Griffith University.
- **Sciences Fellowship Accelerator Application Scheme (FAAS) Grant**: Chief Investigator (CI), 2025, Griffith University.

Sevices

- **Sessional Teaching Associate @ Monash University** (Jul 2021 to Mar 2022): FIT5196 Data Wrangling.
- **Course Convener @ Griffith University** (2025 Trimester 2: July 2025 to Nov 2025): 1803ICT Application System (undergraduate); 7610ICT Application System (postgraduate).
- **Course Convener @ Griffith University** (2024 Trimester 3: Nov 2024 to Feb 2025): 1803ICT Application System (undergraduate); 7610ICT Application System (postgraduate).
- Serving as **Invited Speaker**: ARC Training Center Information Resilience PhD School for 'Automated Graph MLOps', University of Queensland, Brisbane, Australia, 2024; Australia Database Conference (ADC), University of Melbourne, Melbourne, Australia, 2023.
- Serving as **Workshop Chair**: PAKDD-2025.
- Serving as **Program Committee (PC) Member**: IJCAI-2024, CIKM-2024, ICML-2025, ICDM-2025.
- Serving as **Reviewer** for top-tier data science journals and conferences, including: TNNLS, TKDE, KDD, NeurIPS, ICLR, IJCAI, WWW, etc.

Awards & Scholarships

- **Notable Reviewer of ICLR** *2025*
- **Postgraduate Publications Award of Monash University** *2024*
- **Spotlight Poster (Top 5%) in Core A* Conference ICLR** *2024*
- **Spotlight Poster (Top 3%) in Core A* Conference NeurIPS** *2023*
- **Runner Up Poster Award in the Information Resilience Ph.D. School by ARC Training Center** *2022*
- **Excellent Postgraduate Student of Dalian University of Technology** *2020*
- **Excellent Graduate Student of Dalian University of Technology** *2017*
- **National Scholarship of China** (Awarded to Top 10% students) *2018*
- **Special Scholarship of Dalian University of Technology** (Ranked Top 3) *2017*