XI DING

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SUMMARY

Xi Ding holds a master's degree in Machine Learning from the Australian National University (ANU), Canberra, in 2025. He is currently a research intern at Carnegie Mellon University (CMU), working on trustworthy LLM/LVLM. Prior to this, he was a visiting scholar at the Australian Research Council Research Hub (ARC) hosted by Griffith University, where his work primarily focused on interpretable machine learning. His broader research centers on developing reliable and interpretable machine learning methods, with projects spanning graph-based learning for structured data, temporally consistent learning frameworks, and multimodal learning. Xi has published in leading venues such as Advances in Neural Information Processing Systems (NeurIPS), AAAI Conference on Artificial Intelligence (AAAI), and in workshops at The ACM Web Conference (WWW), where his work received a Best Paper Award and an Oral presentation. Beyond research, he actively contributes to the academic community as a reviewer for conferences including ICLR, AAAI, AVSS, and ICME, and served as a Workshop Coordinator at WWW 2025.

RESEARCH INTERESTS

Machine Learning, Representation Learning, Trustworthy AI, Multimodal LLM, Video Understanding

EDUCATION

Australian National University   July 2023 - July 2025
Master of Computing (Machine Learning) GPA (WES converted): 3.85/4.0
Main Coursework: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision.

China Agricultural University & University of Colorado Denver   Sep. 2019 - June 2023
Bachelor of Arts (Economics) GPA: 3.37/4.0
Main Coursework: Statistics, Finance, Game Theory, Econometrics, Micro/Macro Economics.

PUBLICATIONS

Peer-Reviewed Publications

[1] **X. Ding**, L. Wang, P. Koniusz, and Y. Gao, "Learning time in static classifiers," in *AAAI Conference on Artificial Intelligence (AAAI), 2026.*

[2] **X. Ding**, L. Wang, P. Koniusz, and Y. Gao, "Graph your own prompt," in *Advances in Neural Information Processing Systems (NeurIPS) 2025.*

[3] **X. Ding** and L. Wang, "The journey of action recognition," in *Companion Proceedings of the ACM on Web Conference 2025, May 2025, pp. 1869–1884. (Best Paper Award)*

[4] **X. Ding** and L. Wang, "Do language models understand time?," in *Companion Proceedings of the ACM on Web Conference 2025, May 2025, pp. 1855–1868. (Oral)*

Preprints

[5] **X. Ding** and L. Wang, "Quo vadis, anomaly detection? LLMs and VLMs in the spotlight," 2025. (arXiv).

Manuscripts Under Review

[6] L. Wang, **X. Ding**, Y. Gao, and P. Koniusz, "Subspace kernel learning on tensor sequences," submitted to *International Conference on Learning Representations (ICLR)*, 2026.

[7] **X. Ding**, L. Wang, P. Koniusz, and Y. Gao, "When the brain sees beyond pixels: creative brain-to-vision," submitted to *International Conference on Learning Representations (ICLR)*, 2026.

[8] **X. Ding**, L. Wang, Y. Gao, and P. Koniusz, "Trust-aware domain adaptation via joint feature-prediction discrepancy," submitted to *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2026.

RESEARCH EXPERIENCE

Xu Lab, Carnegie Mellon University, Pittsburgh, USA   Oct. 2025 - Present
Research Intern to Prof. Min Xu
Conducting research on trustworthy LLMs/LVLMs and their applications in healthcare and biomedicine.

ARC Research Hub, Griffith University, Brisbane, Australia   Mar. 2025 - Oct. 2025
ARC Hub Visiting Scholar to Prof. Yongsheng Gao
Researched interpretable and explainable machine learning for trustworthy AI, with efforts centered on aligning feature and prediction spaces, modeling uncertainty, and improving robustness across domains.

TIME Lab, Australian National University, Canberra, Australia   Nov. 2024 - Mar. 2025
Research Assistant to Dr. Lei Wang
Researched video understanding and representation learning, including temporal reasoning, anomaly detection, and action recognition, focusing on long-range dependencies, interpretability, and generalization in open-world settings.

Qingdao Aerospace Power Research Institute, Qingdao, China   Nov. 2023 - Feb. 2024
Research Intern, Computing Department
Assisted in a Digital Twin project by building interactive web interfaces and integrating sensor data into simulation modules to support real-time monitoring and maintenance of institute systems.

SELECTED RESEARCH PROJECTS

TIME Space   Feb 2025 - Nov. 2025
Client of the project, ANU TechLauncher
Developed an interactive web platform for TIME Lab's research showcase, featuring ML-based feature extraction and embedding-driven retrieval for automated image tagging, clustering, and semantic search across temporal, spatial, and identity dimensions. Delivered a scalable, data-driven system through full-stack development and cloud deployment.

Active Vision   July 2024 - June. 2025
Leader of the project, ANU TechLauncher
Developed a machine learning-powered computer vision system for real-time tennis swing analysis. High-speed cameras capture motion data, which is processed to extract key performance indicators such as swing speed, angle. The system provides instant feedback via an intuitive interface, aiding performance assessment and technique refinement.

Image Embedding Explorer   Aug. 2024 - Nov. 2024
Student, ANU Advanced Deep Learning Course Project
Built an interactive tool for visualizing high-dimensional image embeddings using projection pursuit. Enables intuitive exploration of embedding structures, linking each data point to its original image for enhanced interpretability in advanced deep learning models, such as CLIP and DINO.

SELECTED EXTRACURRICULAR ACTIVITIES

Invited Speaker, Data61/CSIRO ICVG Reading Group   Jul. 2025
Delivered an academic talk titled "Echoes in the Model: When Features Reflect Predictions," hosted by Data61/CSIRO, Canberra, Australia. Shared research insights with international scholars, facilitated discussion on interpretability in machine learning, and contributed to cross-institutional academic exchange.

Workshop Coordinator, The Web Conference (WWW) 2025   Nov. 2024 - Apr. 2025
Coordinated the TIME 2025 workshop at the WWW 2025. Organized speaker invitations, managed paper reviews, and facilitated discussions in cross-domain knowledge exchange and methodological innovation in web technologies.

SELECTED AWARDS & HONORS

NeurIPS 2025 Scholar Award, NeurIPS 2025   Oct 11, 2025
Best Paper Award, The Web Conference (WWW 2025)   Apr 29, 2025
TIME 2025 Service Medal, TIME Lab   May 1, 2025
Outstanding Academic Achievements Scholarship, University of Colorado Denver   Dec 1, 2021