

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 LLMs/LVLMs and AI4Healthcare. 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, kernel and tensor learning, and multimodal learning. Xi has published in leading venues such as Advances in Neural Information Processing Systems (NeurIPS), International Conference on Learning Representations (ICLR), 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 ICML, 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

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| Australian National University | July 2023 - July 2025 |
| <i>Master of Computing (Machine Learning)</i> GPA (WES converted): 3.85/4.0 | |
| Main Coursework: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision. | |
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| China Agricultural University & University of Colorado Denver | Sep. 2019 - June 2023 |
| <i>Bachelor of Arts (Economics)</i> GPA: 3.37/4.0 | |
| Main Coursework: Statistics, Finance, Game Theory, Econometrics, Micro/Macro Economics. | |

PUBLICATIONS

- [1] L. Wang*, **X. Ding***, Y. Gao, and P. Koniusz, “Subspace kernel learning on tensor sequences,” in *International Conference on Learning Representations (ICLR)*, 2026.
- [2] **X. Ding**, L. Wang, P. Koniusz, and Y. Gao, “Learning time in static classifiers,” in *AAAI Conference on Artificial Intelligence (AAAI)*, 2026.
- [3] **X. Ding**, L. Wang, P. Koniusz, and Y. Gao, “Graph your own prompt,” in *Advances in Neural Information Processing Systems (NeurIPS) 2025*.
- [4] **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)*
- [5] **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)*
- [6] **X. Ding** and L. Wang, “Quo vadis, anomaly detection? LLMs and VLMs in the spotlight,” 2025. (arXiv).

Manuscripts Under Review

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

- [9] Q.-H. Trinh*, **X. Ding***, Y. Liu, Z. Qin, X. Li, G. Durak, H. E. Aktas, E. Keles, M. Xu, and U. Bagci, “Beyond medical diagnostic: How medical multimodal large language model thinking in space,” in *International Conference on Machine Learning (ICML)*, 2026.

RESEARCH EXPERIENCE

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| Xu Lab, Carnegie Mellon University, Pittsburgh, USA <i>Research Intern to Prof. Min Xu</i> Conducting research on trustworthy LLMs/LVLMs and their applications in healthcare and biomedicine. | Oct. 2025 - Present |
| ARC Research Hub, Griffith University, Brisbane, Australia <i>ARC Hub Visiting Scholar to Prof. Yongsheng Gao</i> 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. | Mar. 2025 - Oct. 2025 |
| TIME Lab, Australian National University, Canberra, Australia <i>Research Assistant to Dr. Lei Wang</i> 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. | Nov. 2024 - Mar. 2025 |
| Qingdao Aerospace Power Research Institute, Qingdao, China <i>Research Intern, Computing Department</i> 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. | Nov. 2023 - Feb. 2024 |

SELECTED RESEARCH PROJECTS

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| TIME Space <i>Client of the project, ANU TechLauncher</i> Developed an interactive web platform for TIME Lab’s research showcase with ML-based feature extraction and embedding-driven retrieval for automated image tagging, clustering, and semantic search. | Feb 2025 - Nov. 2025 |
| Active Vision <i>Leader of the project, ANU TechLauncher</i> Built an ML-powered computer vision system for real-time tennis swing analysis. Processed high-speed camera data to extract performance metrics (e.g., swing speed, angle) and provided instant feedback via an intuitive interface. | July 2024 - June. 2025 |
| Image Embedding Explorer <i>Student, ANU Advanced Deep Learning Course Project</i> Created an interactive tool to visualize high-dimensional image embeddings using projection pursuit, linking projections to source images to improve interpretability of models such as CLIP and DINO. | Aug. 2024 - Nov. 2024 |

SELECTED EXTRACURRICULAR ACTIVITIES

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| Invited Speaker, Data61/CSIRO ICVG Reading Group 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. | Jul. 2025 |
| Workshop Coordinator, The Web Conference (WWW) 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. | Nov. 2024 - Apr. 2025 |

SELECTED AWARDS & HONORS

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| 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 |
| Certificate of Nomination , Student Pitch Competition at ANU | Nov 27, 2024 |
| Outstanding Academic Achievements Scholarship , University of Colorado Denver | Dec 1, 2021 |