

Xinyu Tian

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EDUCATION

- **Australian National University** ACT, Australia
Ph.D., College of Engineering, Computing and Cybernetics Jul 2023 – Present
- **Australian National University** ACT, Australia
Bachelor of Advanced Computing (Honours); GPA: 6.875 / 7 Jul 2021 – Jun 2023
- **Shandong University** Shandong, China
Bachelor of Computer Science; GPA: 91.47 / 100 Sep 2019 – June 2021

RESEARCH PROJECTS

- **DARPA - Transfer from Imprecise & Abstract Models to Autonomous Technologies:** Design multi-modal foundational models for precise and robust recognition of various visual concepts.
- **DARPA - Geometries of Learning:** Building robust and explainable computer vision models. Research on attribute-based soft prompting for vision-language models.
- **CSIRO - UAV-based Efficient Communication:** Build large-scale IoT system utilizing reinforcement learning on an extensive farm, where UAVs and sensors efficiently transmit real-time data at minimal cost.

EXPERIENCE

- **Tiktok, ByteDance Ltd.** NSW, Australia
Machine Learning Engineer Intern Mar 2026 - Present
 - Post-train livestream video-language model, improving multimodal understanding capability.
 - Deploy models to production and build online pipeline to adapt to evolving data distribution.
- **Pawsey Supercomputing, CSIRO** WA, Australia
Research Intern - Computer Vision and Machine Learning Nov 2022 – Feb 2023
 - Deploy and train large-scale reinforcement learning models on multi-node cluster.
 - Optimize collaboration among multiple agents in the environment and transfer to real-world scenarios.

SKILLS

- **Programming Languages:** Python, C, C++, C#, Java **Deployment:** Docker, AWS, GCP
- **Deep Learning Frameworks:** PyTorch, TensorFlow, CUDA **Database:** MongoDB, PostgreSQL

PUBLICATIONS

- **Xinyu Tian**, Shu Zou, Zhaoyuan Yang, Mengqi He, et al. “All Roads Lead to Rome: Incentivizing Divergent Thinking in Vision-Language Models.”, CVPR 2026.
- **Xinyu Tian**, Shu Zou, Zhaoyuan Yang, Mengqi He, et al. “More Thought, Less Accuracy? On the Dual Nature of Reasoning in Vision-Language Models.”, ICLR 2026.
- **Xinyu Tian**, Shu Zou, Zhaoyuan Yang, Jing Zhang. “Identifying and Mitigating Position Bias of Multi-image Vision-Language Models.”, CVPR 2025 Oral (Top 1%).
- **Xinyu Tian**, Shu Zou, Zhaoyuan Yang, Mengqi He, Jing Zhang. “Black Sheep in the Herd: Playing with Spuriously Correlated Attributes for Vision-Language Recognition.”, ICLR 2025.
- **Xinyu Tian**, Shu Zou, Zhaoyuan Yang, Jing Zhang. “ArGue: Attribute-Guided Prompt Tuning for Vision-Language Models.”, CVPR 2024.