

EDUCATION	School of Computer Science, University of Sydney	Sydney, Australia
	<i>Ph.D., Computer Science</i>	2023 - 2026 (<i>expected</i>)
	• Advisors: Chang Xu & Daochang Liu • Research area: Uncertainty Calibration, Large (Vision) Language Models	
	School of Computer Science, University of Sydney	Sydney, Australia
	<i>M.Phil., Computer Science</i>	2021 - 2023
	• Advisors: Chang Xu & Lijun chang • Research area: Uncertainty Calibration, Neural Architecture Search	
	School of Computer Science, University of Sydney	Sydney, Australia
	<i>M.E., Data Science</i>	2020 - 2021
	Huazhong University of Science and Technology	Wuhan, China
	<i>B.E., Communication Engineering</i>	2013 - 2017
	• Received Science and Technology Scholarship	
EXPERIENCES	Research Intern Apple MLR, Cambridge UK	2026.05 - 2026.10
	• RL post-training for large language models. • Training infrastructure efficiency and reward hacking analysis.	
	Research Intern Google Research, Sydney AU	2025.11 - 2026.02
	• Speculative decoding for efficient LLM inference, targeting decoding latency and serving throughput.	
	Teaching Assistant University of Sydney, Sydney	2022 - now
	• COMP5329 Deep Learning	Spring 2022, 2023, 2024, 2025
	• COMP5318 Machine Learning and Data Mining	Fall 2025
	• HTIN5005 Applied Healthcare Data Science	Fall 2022, 2023
	• OCMP5329 Deep Learning (Online)	Fall 2024, 2025
	• BUSS6002 Data Science in Business	Spring 2024, 2025 Fall 2024, 2025
	• QBUS5010 Intro to Dashboarding and Data Visualisation	Fall 2024, 2025
	Construction Supervisor Songjiang Construction Union, Shanghai	2017.07 - 2019.10
	IOS Developer Intern Trip.com, Shanghai	2015.06 - 2015.09
	Frontend Developer Intern Sunallies, Shanghai	2014.06 - 2014.09
AWARDS AND GRANTS	• Apple Scholars in AI/ML PhD Fellowship (20 selected worldwide, first Australian recipient), Apple 2026.04 • FFT Student Survey Award for Outstanding Achievement in BUSS6002, USYD Business School 2025.12 • AAAI 2026 Student Program Committee (3 selected worldwide), AAAI 2025.06 • International Tuition Fee Scholarship, USYD 2023.06 • Faculty of Engineering Research Support Scholarship, USYD 2023.05 • Excellent Student Cadre, HUST, 2015.09 • Science and Technology Scholarship, HUST 2014.06	

- PUBLICATIONS
1. Haoyang Luo, **Linwei Tao**, Jie Gui, Xinghao Chen, Chang Xu, Jianyuan Guo, Minjing Dong. Revealing Epistemic Uncertainty in MLLMs via Causal-Invariant Masking. *Conference on Neural Information Processing Systems, NeurIPS 2026*.
 2. Haolan Guo, **Linwei Tao**, Haoyang Luo, Minjing Dong, Chang Xu. Sample Margin-Aware Recalibration of Temperature Scaling. *International Conference on Machine Learning, ICML 2026*.
 3. Xiaoyang Li, **Linwei Tao**, Haohui Lu, Minjing Dong, Junbin Gao, Chang Xu. Calibrating Graph Neural Networks with Wavelet-Aware Temperature Scaling. *International Conference on Learning Representations, ICLR 2026*.
 4. Lei Pan, Zhipeng Lu, Yuan Zheng, Chongyao Yan, Haitao Wen, **Linwei Tao**, Chang Xu. Task-adaptive continual learning of vision language models via prototype routing and prompt. *Neurocomputing*, 2026.
 5. **Linwei Tao**, Yi-Fan Yeh, Minjing Dong, Tao Huang, Philip Torr, Chang Xu. Revisiting Uncertainty Estimation and Calibration of Large Language Models. *Conference on Neural Information Processing Systems, NeurIPS 2025 Scaling Environments for Agents (SEA) Workshop*
 6. Yingqing Yuan, **Linwei Tao**, Haohui Lu, Matloob Khushi, Imran Razzak, Mark Dras, Jian Yang, Usman Naseem. KG-UQ: Knowledge Graph-Based Uncertainty Quantification for Long Text in Large Language Models. *International World Wide Web Conference, WWW 2025 Workshop on Sustainable AI for the Future Web*
 7. Haoyang Luo, **Linwei Tao**, Minjing Dong, Chang Xu. Beyond One-Hot Labels: Semantic Mixing for Model Calibration. *International Conference on Machine Learning, ICML 2025*.
 8. Jinxu Lin, **Linwei Tao**, Minjing Dong, Chang Xu. Uncertainty Weighted Gradients for Model Calibration. *The IEEE / CVF Computer Vision and Pattern Recognition Conference, CVPR 2025*.
 9. Jinxu Lin, **Linwei Tao**, Minjing Dong, Chang Xu. Diffusion Attribution Score: Evaluating Training Data Influence in Diffusion Model. *International Conference on Learning Representations, ICLR 2025*. (Spotlight, 5.1% of 11,500 submissions)
 10. **Linwei Tao**, Minjing Dong, Chang Xu. Feature Clipping for Uncertainty Calibration. *AAAI Conference on Artificial Intelligence, AAAI 2025*.
 11. Lei Pan, Wuyang Luan, Yuan Zheng, Junhui Li, **Linwei Tao**, Chang Xu. GraphFusion: Integrating Multi-Level Semantic Information with Graph Computing for Enhanced 3D Instance Segmentation. *Neurocomputing*, 2024.
 12. **Linwei Tao**, Younan Zhu, Haolan Guo, Minjing Dong, Chang Xu. A Benchmark Study on Calibration. *International Conference on Learning Representations, ICLR 2024*.
 13. **Linwei Tao**, Minjing Dong, Chang Xu. Dual Focal Loss for Calibration. *International Conference on Machine Learning, ICML 2023*.
 14. **Linwei Tao**, Minjing Dong, Daochang Liu, Changming Sun, Chang Xu. Calibrating a Deep Neural Network with Its Predecessors. *International Joint Conference on Artificial Intelligence, IJCAI 2023*.

PREPRINTS

1. **Linwei Tao**, Yi-Fan Yeh, Bo Kai, Minjing Dong, Tao Huang, Tom A. Lamb, Jialin Yu, Philip H.S. Torr, Chang Xu. Can Large Language Models Express Uncertainty Like Human?
2. Younan Zhu, **Linwei Tao**, Minjing Dong, Chang Xu. Attention Calibration for Reducing Hallucination in Large Vision-Language Models.
3. Yunke Wang, **Linwei Tao**, Bo Du, Yutian Lin, Chang Xu. Visual Imitation Learning with Calibrated Contrastive Representation.
4. **Linwei Tao**, Haoyang Luo, Minjing Dong, Chang Xu. Confidence Calibration under Ambiguous Ground Truth. *arXiv:2603.22879*, 2026.
5. **Linwei Tao**, Haolan Guo, Minjing Dong, Chang Xu. Consistency Calibration: Improving Uncertainty Calibration via Consistency among Perturbed Neighbors.
6. Rui Xu, Yunke Wang, **Linwei Tao**, Wenjie Xuan, Yong Luo. Diversifying Personalized Research Ideation against AI-Induced Homogenization. *arXiv:2607.28087*, 2026.

ACADEMIC
SERVICES

Conference Reviewer: *ICML, NeuIPS, ICLR, CVPR, ICCV, AAAI, IJCAI, ACMMM, AISTATS*

Journal Reviewer: *T-MM, TMLR, DAMI, TPAMI, Machine Learning*