

EDUCATION

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| School of Computer Science, University of Sydney
<i>Ph.D., Computer Science</i> | Sydney, Australia
2023 - 2026 (<i>expected</i>) |
| <ul style="list-style-type: none"> • Advisors: Chang Xu & Daochang Liu • Research area: Uncertainty Calibration, Machine Learning | |
| School of Computer Science, University of Sydney
<i>M.Phil., Computer Science</i> | Sydney, Australia
2021 - 2023 |
| <ul style="list-style-type: none"> • Advisors: Chang Xu & Lijun chang • Research area: Uncertainty Calibration, Neural Architecture Search | |
| School of Computer Science, University of Sydney
<i>M.E., Data Science</i> | Sydney, Australia
2020 - 2021 |
| Huazhong University of Science and Technology
<i>B.E., Communication Engineering</i> | Wuhan, China
2013 - 2017 |
| <ul style="list-style-type: none"> • Received Science and Technology Scholarship | |

PUBLICATIONS

1. 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.
2. 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**)
3. **Linwei Tao**, Minjing Dong, Chang Xu. Feature Clipping for Uncertainty Calibration. *AAAI Conference on Artificial Intelligence, AAAI* 2025.
4. 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.
5. **Linwei Tao**, Younan Zhu, Haolan Guo, Minjing Dong, Chang Xu. A Benchmark Study on Calibration. *International Conference on Learning Representations, ICLR* 2024.
6. **Linwei Tao**, Minjing Dong, Chang Xu. Dual Focal Loss for Calibration. *International Conference on Machine Learning, ICML* 2023.
7. **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.
8. 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

PREPRINTS

1. **Linwei Tao**, Haolan Guo, Minjing Dong, Chang Xu. Consistency Calibration: Improving Uncertainty Calibration via Consistency among Perturbed Neighbors.
2. Yunke Wang, **Linwei Tao**, Bo Du, Yutian Lin, Chang Xu. Visual Imitation Learning with Calibrated Contrastive Representation.
3. Younan Zhu, **Linwei Tao**, Minjing Dong, Chang Xu. Attention Calibration for Reducing Hallucination in Large Vision-Language Models.
4. Haoyang Luo, **Linwei Tao**, Minjing Dong, Chang Xu. Beyond One-Hot Labels: Semantic Mixing for Model Calibration.

EXPERIENCES	Teaching Assistant University of Sydney, Sydney	2022 - now
	• COMP5329 Deep Learning	Spring 2022, 2023, 2024, 2025
	• HTIN5005 Applied Healthcare Data Science	Fall 2022, 2023
	• OCMP5329 Deep Learning (Online)	Fall 2024
	• BUSS6002 Data Science in Business	Spring 2024, Fall 2024
	• QBUS5010 Intro to Dashboarding and Data Visualisation	Fall 2024
	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	• Google Cloud Research Credits Award (\$2340 AUD) , Google	2024.05
	• 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
TALKS	• “ITCD: Image to Text Translation for Classification by Diffusion Models”, at Efficiency, Security, and Generalization of Multimedia Foundation Models Workshop @ ACM Multimedia 2024	2024.10
	• “Dual Focal Loss for Calibration”, at AI-Time	2023.05
	• “Calibrating a Deep Neural Network with Its Predecessors”, at University of Sydney, Deep Learning class	2023.02
ACADEMIC SERVICES	Conference Reviewer: <i>ICML, NeuIPS, ICLR, CVPR, ICCV, AAAI, IJCAI, ACMMM, AISTATS</i>	
	Journal Reviewer: <i>T-MM, TMLR, DAMI, TPAMI, Machine Learning</i>	