Xiaoyu Yang

Supervisor: Distinguished Professor Jie Lu
AAII, University of Technology Sydney

(+61) 0493951782 | Xiaoyu.Yang-3@student.uts.edu.au
Homepage: https://xiaoyuyoung.github.io/
Google Scholar: https://scholar.google.com/citations?&user=tqjfj-EAAAAJ

Education

- Tongji University | Computer Science (Undergraduate) 2016 to 2020
- Tongji University | Computer Science (Master) 2020 to 2023
- University of Technology Sydney | Computer Science (PhD Student) 2024 to the present

Research Focus

Concept Drift, Women's Healthcare, Medical Imaging, Multi-modal Large Language Model

Publications

1. [NeurIPS'25] **Xiaoyu Yang**, Jie Lu, and En Yu. "Walking the Tightrope: Autonomous Disentangling Beneficial and Detrimental Drifts in Non-Stationary Custom-Tuning." *The Thirty-ninth Annual Conference on Neural Information Processing Systems.* 2025.

2. [ICLR'25] **Xiaoyu Yang**, Jie Lu, and En Yu. "Adapting Multi-modal Large Language Model to Concept Drift From Pre-training Onwards." *The Thirteenth International Conference on Learning Representations*. 2025.

3. [ICML'25] **Xiaoyu Yang**, Lijian Xu, Hongsheng Li, and Shaoting Zhang, "One Leaf Reveals the Season: Occlusion-Based Contrastive Learning with Semantic-Aware Views for Efficient Visual Representation," *The Forty-second International Conference on Machine Learning.* 2025.

4. [TMI'24] **Xiaoyu Yang**, Lijian Xu, Simon Yu, Qing Xia, Hongsheng Li, and Shaoting Zhang, "Segmentation and Vascular Vectorization for Coronary Artery by Geometry-based Cascaded Neural Network," *IEEE Trans. Med. Imaging, pp. 1–1, 2024, doi: 10.1109/TMI.2024.3435714.* 2024.

5. [AAAI'23] **Xiaoyu Yang**, Yufei Chen, Xiaodong Yue, Shaoxun Xu, and Chao Ma, "T-distributed Spherical Feature Representation for Imbalanced Classification," *Proceedings of the AAAI Conference on Artificial Intelligence. Vol. 37, No. 9, Art. no. 9.* 2023.

6. [BIBM'21] **Xiaoyu Yang**, Yufei Chen, Xiaodong Yue, Xiang Lin, and Qi Zhang, "Variational

Synthesis Network for Generating Micro Computed Tomography from Cone Beam Computed Tomography," *in 2021 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2021, pp. 1611–1614. doi: 10.1109/BIBM52615.2021.9669498.* 2021.

7. [Applied Intelligence'21] **Xiaoyu Yang**, Yufei Chen, Xiaodong Yue, Chao Ma, and Panpan Yang, "Local linear embedding based interpolation neural network in pancreatic tumor segmentation," *Appl. Intell., Nov. 2021, doi: 10.1007/s10489-021-02847-9.* 2021.

8. [AAAI'26 Oral] En Yu, Jie Lu, Kun Wang, **Xiaoyu Yang**, Guangquan Zhang. "Drift-aware collaborative assistance mixture of experts for heterogeneous multistream learning." *Proceedings of the AAAI Conference on Artificial Intelligence*. Vol. 40. No. 19. 2026.

9. [TFS'26] En Yu, Jie Lu, **Xiaoyu Yang**, Guangquan Zhang, "Autonomous Online Multistream Generalization via Fuzzy Joint Discriminant Analysis" *IEEE Transactions on Fuzzy Systems, doi: 10.1109/TFUZZ.2026.3656402.* 2026.

10. [NeurIPS'25] En Yu, Jie Lu, **Xiaoyu Yang**, Guangquan Zhang, and Zhen Fang, "Learning Robust Spectral Dynamics for Temporal Domain Generalization," *The Thirty-ninth Annual Conference on Neural Information Processing Systems.* 2025.

11. [Applied Intelligence'24] Yufei Chen, **Xiaoyu Yang**, Xiaodong Yue, Xiang Lin, Qi Zhang, and Hamido Fujita, "A general variation-driven network for medical image synthesis," *Appl. Intell., Feb. 2024, doi: 10.1007/s10489-023-05017-1.* 2024.

Awards and Recognitions

- UTS President's Scholarship.
- International Research Scholarship.
- Shanghai Computer Society (SCS) Outstanding Master's Thesis Award (Top 10 in Shanghai).

Academic Services

- Conference Reviewer: NeurIPS, ICML, ICLR, CVPR, ECCV, AAAI, etc.
- Journal Reviewer: Knowledge-based systems (KBS), Medical image analysis (MIA), Pattern recognition (PR), IEEE Transactions on Medical Imaging (TMI), IEEE Transactions on Artificial Intelligence (TAI), etc.

Participated Projects

- [ARC Industry Laureate Project] Personalised Machine Learning to Support Women's Quality of Life.
- [ARC Laureate Project] Autonomous learning for decision making in complex situations.
- [NSFC General Project] Research on pancreatic tumor image analysis methods combining evidence theory and deep learning