Xiaodi Yu

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Education

Zhongnan University Of Economics and Law, Wuhan, China *Sep. 2022 – May. 2026*
B.Eng.,Computer Science

- **GPA:** 3.72/4.0 **Average Score:** 89.39/100
- **Core Courses:** Programming(98), Data Structure(91), Discrete Mathematics(93), Advanced Mathematics(85), Artificial Intelligence(92)
- **Awards:**
  - Academic Scholarship (2 consecutive years), Second & Third class, 2022 - 2024
  - Outstanding Youth League Member & Excellent Class Leader , 2023 - 2024
  - Provincial Innovation and Entrepreneurship Program Award, 2023-2024
- **Research Interests:** Computer Vision, Machine Learning, Deep Learning, Graph Learning, Multimodal Learning, Images Processing, Remote Sensing

Manuscript

- **X. Yu**, Y. Cai, Z. Zhang, X. Liu, F. Li(2025). "Uncertainty-Aware Deep Anchor Graph Learning for Multimodal Remote Sensing Image Clustering," **(Submitted)**.

Research Experience

Uncertainty-Aware Multimodal Clustering for Remote Sensing Images *Apr. 2025 – Present*

Independent Research | Supervisor: Prof. Yaoming Cai

- Designed a UDAG framework for clustering HS and LiDAR images without supervision
- Proposed an uncertainty-aware fusion strategy that adaptively weights modalities based on uncertainty
- Incorporated total variation regularization to preserve spatial smoothness in clustering results
- Achieved state-of-the-art performance on three datasets with significantly improved accuracy by 4.6% - 18.4%
- One paper submitted to PRCV

Deep Anchor Graph Clustering with Learnable Anchors *Feb. 2025 – Present*

Research Assistant | Supervisor: Prof. Yaoming Cai

- Assisted in building a neural network for automatic anchor generation in clustering
- Tuned model parameters and conducted experiments on UCI datasets (Wine, Iris)
- improved clustering accuracy by 10–12% through training strategy refinement
- Participated in result analysis and paper writing for publication

End-to-End Image Clustering via Superpixel-Based Representation *Feb. 2025 – May. 2025*

Independent Research | Supervisor: Prof. Yaoming Cai

- Designed and implemented an end-to-end image clustering network based on superpixel segmentation
- Extracted deep features with ResNet and generated region representations via a custom superpixel module
- Developed a CNN-based similarity prediction module to compute pixel-neighbor similarity maps
- Integrated deep embedding clustering techniques to improve unsupervised image clustering

Technologies

Languages: Mandarin(native), English(working efficiency, IELTS in preparation)

Programming: Python (Proficient), C++ (Familiar), Java (Familiar)