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

Publication

- **X. Yu**, Y. Cai, Z. Zhang, X. Liu, F. Li(2025). "Uncertainty-Aware Deep Anchor Graph Learning for *Multimodal Remote Sensing Image Clustering,*" *The 8th Chinese Conference on Pattern Recognition and Computer Vision (PRCV 2025).* **(Accepted)**.

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.

Project Experience

The Design of a patient registration system in Java *Oct. 2023 – Dec. 2023*

- Designed and implemented a patient registration system in Java using Servlet, JSP, and MySQL, covering user management, registration records, and role-based login.
- Tools Used: JDK, Tomcat, MySQL

The Design of Web front-end three-level page *Feb. 2024 – May. 2024*

- Built a responsive three-tier front-end web page using HTML, CSS, and JavaScript, focusing on layout design and interactive event handling.
- Tools Used: HTML, CSS, JavaScript

Visualization of college students' employment situation and data *Mar. 2024 – Jun. 2024*

- Collected and visualized job-related data for college students using Python, including web scraping, data preprocessing, and graphical analysis with Matplotlib.
- Tools Used: Python

Academic Experience

Chinese Congress on Image and Graphics (CCIG 2025) *May. 2025*
Attendee

- Attended keynote talks and technical sessions on computer vision and image understanding.

Technologies

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

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