Chenyue Li

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Research interest: Computer Vision; Multimodal learning

EDUCATION

Wuhan University 2021.09-2025.06

Bachelor of Engineering

- Major: Computer Science and Technology
- **GPA:** 3.89/4.00 (Ranking: 7/255, Top 2%) **Average Score:** 91.276/100
- English Ability: Scored 107 in TOEFL. 29, 30, 26, 22 for reading, listening, writing, speaking, respectively.

PUBLICATIONS

ECCV2024(European Conference on Computer Vision)

2023.12-2024.03

With Prof. Mang Ye

First Author

- Paper name: Adaptive High-Frequency Transformer for Diverse Wildlife Re-Identification
- Conducted a comprehensive analysis of challenges unique to the relatively under-explored wildlife ReID task, which differentiates among individuals within the same species, setting it apart from the more established conventional person and vehicle ReID tasks.
- Proposed a unified, multi-species general high-frequency Transformer architecture to enhance applicability across various species, breaking through the existing species-specific methods, and evaluated the model on diverse wildlife datasets, where it achieved superior performance over state-of-the-art ReID methods.
- Our paper is available at: https://www.ecva.net/papers/eccv_2024/papers_ECCV/papers/06054.pdf.

IJCV(International Journal of Computer Vision)

2023.09-2024.01

With Prof. Mang Ye

Third Author

- Paper name: Transformer for Object Re-Identification: A Survey
- Analyzed the evolution of the Re-ID field, highlighting the shift from deep learning technologies based on convolutional neural networks to the advent of Vision Transformers.
- Assisted in proposing a new Transformer baseline, targeting unsupervised Re-ID tasks and achieving state-of-the-art performance in both single and cross-modal tasks.
- Our paper has been is available at: https://arxiv.org/abs/2401.06960.

Microscopy Foundation Model(Ongoing)

2024.07-now

With Prof. Yuyin Zhou

• We designed Microscopy Foundation Model for microscopy image analysis, targeting multiple downstream tasks including 2D segmentation, 3D segmentation, deblurring, denoising and so on. Microscopy Foundation Model aims to provide a unified framework for efficient and accurate microscopy image processing across a range of tasks.

PROJECTS

Team Leader

College Student Innovation & Entrepreneurship Training Program(National Level)

• Project name: Multimodal Trusted Computing Platform

2023.06-2024.06

- Led the team to develop a multimodal retrieval platform integrating text, sketches, and infrared data, incorporating federated learning for data privacy protection and creating an interactive platform.
- Acquired in-depth knowledge of multimodal retrieval technologies involving text, sketches, UAV, and infrared data, involving CLIP, prototype learning, and other technologies. Demonstrated leadership in guiding the team's technical direction.
- The project was successfully rated as national-level and received funding from the National University Students' Innovation and Entrepreneurship Fund.

AWARDS

• National Scholarship (Award Rate: 0.2% national-wide)

| • First Class Scholarship of Wuhan University(Award Rate: 5% school-wide) | 2024 |
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| • Merit Student (Award Rate: 10% school-wide) | 2024 |
| • Chinese Collegiate Computing Competition - National Frist Prize(Team Leader) | 2024 |
| • First Class Scholarship of Wuhan University(Award Rate: 5% school-wide) | 2023 |
| • Longfor Scholarship (Award Rate: 60/59774=0.1% school-wide) | 2023 |
| • Merit Student (Award Rate: 10% school-wide) | 2023 |
| • China's Innovation Challenge On Artificial Intelligence Application Scene - National Second Prize 2023 | |
| • Outstanding Student (Award Rate: 30% school-wide) | 2022 |
| • Third Class Scholarship of Wuhan University(Award Rate: 30% school-wide) | 2022 |

SKILLS AND COURSES

Languages: Python, C/C++, C#, JavaScript, Java

Mathematics: Achieved 4.0/4.0 in all mathematics courses, including Advanced Mathematics, Linear Algebra, Probability and Mathematical Statistics, and Discrete Mathematics.

Coursework: Introduction to Artificial Intelligence, Data Structure, Operating System, Computer Organization and Design, Digital Logic and Digital Circuits, Database Systems, Computer Networks