Curriculum Vitae

Haiyang Zheng

Basic Information

Ph.D. Candidate

Research interests: Image Clustering, Generalized Category Discovery

Department of Information Engineering and Computer Science, University of Trento

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Education

2024.11 – Present

Ph.D. Candidate in Computer Science

Department of Information Engineering and Computer Science, University of Trento, Italy.

Supervisor: Prof. Nicu Sebe and Prof. Zhun Zhong

2021.09 – 2024.06

Master of Engineering in Computer Technology

School of Computer Science and Technology, Harbin Institute of Technology, Shenzhen, China

Supervisor: Prof. Hongpeng Wang

2017.09 – 2021.06

Bachelor of Engineering in Vehicle Engineering

School of Automotive Engineering, Harbin Institute of Technology, Weihai, China

Core Skills

Programming & Tools
Skilled in Python (PyTorch, Scikit-learn), C, LaTeX, and Git; possess solid foundations in linear algebra and probability theory, which can support research needs such as loss function derivation and algorithm optimization.

Models & Algorithms
Proficient in image feature extraction models (ResNet, ViT) and cross-modal alignment models (CLIP); master unsupervised/semi-supervised learning algorithms, and capable of independently completing the full process from model design, training optimization to performance validation.

Language & Collaboration Skills
Fluent in English (IELTS 6.5), with proficiency in academic writing, international conference communications, and cross-national team collaboration; additionally, possess interdisciplinary collaboration experience in engineering and algorithms.

Awards

Scholarship

NeurIPS 2024 Scholar Award	2024
Students' Star of Self-improvement (Top 3%)	2023
First-Class Scholarship for Graduate Studies (5/89)	2021

Honor

ACM Multimedia 2024 Outstanding Reviewer	2024
Excellent Student of Harbin Institute of Technology	2022
Excellent Graduate of Harbin Institute of Technology	2021
Excellent Student of Harbin Institute of Technology	2019

Competition

Formula Student China-Third place in race car design	2019, 2020

Publications

[1] **Haiyang Zheng**, Nan Pu, Wenjing Li, Teng Long, Nicu Sebe, Zhun Zhong. Open-World Deepfake Attribution via Confidence-Aware Asymmetric Learning. In *The 40th Annual AAAI Conference on Artificial Intelligence* (AAAI), 2026.

[2] **Haiyang Zheng**, Nan Pu, Wenjing Li, Nicu Sebe, Zhun Zhong. Prototypical Hash Encoding for On-the-Fly Fine-Grained Category Discovery. In *The Thirty-Ninth Annual Conference on Neural Information Processing Systems* (NeurIPS), 2024.

[3] **Haiyang Zheng**, Nan Pu, Wenjing Li, Nicu Sebe, Zhun Zhong. Textual Knowledge Matters: Cross-Modality Co-Teaching for Generalized Visual Class Discovery. In *European Conference on Computer Vision* (ECCV), 2024.

[4] **Haiyang Zheng**, Ruilin Zhang, Hongpeng Wang. Deep Image Clustering Based on Curriculum Learning and Density Information. In *Proceedings of the ACM International Conference on Multimedia Retrieval* (ICMR), 2024.

[5] Xiao Liu, Nan Pu, **Haiyang Zheng**, Wenjing Li, Nicu Sebe, Zhun Zhong. Generate, Refine, and Encode: Leveraging Synthesized Novel Samples for On-the-Fly Fine-Grained Category Discovery. In *Proceedings of the IEEE/CVF International Conference on Computer Vision*, (ICCV), 2025.

[6] Ruilin Zhang, **Haiyang Zheng**, Hongpeng Wang. TDEC: Deep Embedded Image Clustering with Transformer and Distribution Information. In *Proceedings of the ACM International Conference on Multimedia Retrieval* (ICMR), 2023.