

Weijia Fan - Hours Waking

E-mail: wakinghoursszu@outlook.com * *Telephone number:* +86 19875501705

Personal Website * GitHub * Google Scholar

Education

Master's degree in Computer Technology

Master of Engineering

Final GPA: 3.65/4.0

Awards: Academic Scholarship (Special Class \times 1, First Class \times 1)

Shenzhen University

Seq. 2023 - Jun. 2026

Bachelor's degree in IOT, minor in Economics

Bachelor of Engineering, Bachelor of Economics

Final GPA: 3.64/4.0

Ranking: 1/116

Core Curriculum: Data Structure and Algorithms, Technique & Application of Database, Electronic Technique, C/C++ Language...

Awards: National Scholarship \times 1, School Scholarship \times 6, Merit Student, Software Literature

Harbin University of Commerce

Seq. 2019 - Jun. 2023

Work Experience

Fisheye Calibration Project

Developer & Algorithm Engineer

May 2022 - July 2022

Harbin, China

- Developed a fisheye correction algorithm using latitude and longitude coordinates combined with edge-adaptive thresholds for curvature restoration and accurate rectification.
- Achieved high-quality image restoration while maintaining real-time performance on FPGA.

Publications

- **Weijia Fan**, Qiufu Li, Jiajun Wen, Xiaoyang Peng, Linlin Shen. BCE3S: Binary Cross-Entropy-Based Tripartite Synergistic Learning for Long-Tailed Recognition. (Submitted to CVPR 2025).
- **Weijia Fan**, Jiajun Wen, Xi Jia, Linlin Shen, Jiancan Zhou, Qiufu Li. EPL: Empirical Prototype Learning for Deep Face Recognition. arXiv.2405.12447. (Submitted to Neurocomputing).
- **Weijia Fan**, Ru Zhang, Hao He, Siyu Hou, Yongbo Tan. A Short-Term Price Prediction-Based Trading Strategy. *PLOS ONE*, 2023.
- Shizhen Bai, Hao He, Chunjia Han, Mu Yang, Xinrui Bi, and **Weijia Fan**. What Makes a Theme Park Experience Less Enjoyable? Evidence from Online Customer Reviews of Disneyland China. *Frontiers in Psychology*, 2023. (AJG-1, SSCI-Q1).
- Shizhen Bai, Hao He, Chunjia Han, Mu Yang, Dingyao Yu, Xinrui Bi, Brij B. Gupta, **Weijia Fan**, and Prabin Kumar Panigrahi. Exploring Thematic Influences on Theme Park Visitors' Satisfaction: An Empirical Study on Disneyland China. *Journal of Consumer Behaviour*, 2023. (AJG-2, SSCI-Q3).

Technical Skills

Programming Languages/Tools

C/C++, Java, Matlab, Python, Office, L^AT_EX, PyTorch, TensorFlow.

Server Management

Extensive experience managing Linux servers, including large-scale GPU-accelerated servers running Ubuntu and CentOS-based cloud servers deployed on Tencent Cloud.

Language Proficiencies

English IELTS Overall Band Score (Dec. 2024): 6.0 (Listening: 5.5, Reading: 7.0, Writing: 5.5, Speaking: 6.0).

Research Fields

Feature Uniformity Learning
Large Language Model
Face Recognition
Long-tailed Recognition
Prototype Learning
Metric Learning

Self Evaluation

Passionate: I am deeply passionate about life, which drives me to embrace diverse experiences and continuously expand my horizons.

Self-motivation: I am driven by self-motivation, which inspires me to explore new fields of research and pursue a wide range of interests.

Future Research

In the future, my research focuses on advancing cross-modal large language models through three main directions:

1. Cross-modal Large Models:

Enhancing cross-modal models' performance through feature uniformity learning, with particular emphasis on:

- Optimizing intra-class compactness across different modalities
- Improving inter-class discriminability in multi-modal feature spaces
- Developing robust alignment strategies between modalities

2. Large Language Models in Computer Vision:

Leveraging LLMs' knowledge for visual understanding tasks through:

- Integration of language model knowledge in visual reasoning
- Development of vision-language architectures
- Addressing fundamental challenges in visual understanding using language model capabilities

3. LLM Interpretability:

Investigating the internal mechanisms of large language models by:

- Developing novel interpretability methods
- Analyzing decision-making processes
- Understanding knowledge representation and reasoning patterns