

Weijia Fan

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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: 3.67/4.0

Ranking: 1/118

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 CoreA).
- **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 Knowledge-Based Systems).
- **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
Vision-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 research through two main directions:

- 1. Cross-modal Representation Alignment**
I aim to investigate intra-class compactness and inter-class separability across modalities. My focus is on developing novel loss functions and training strategies to enhance the performance of general vision-language models and downstream tasks.
- 2. Text-enhanced Visual Encoding**
Leveraging LLMs' knowledge for visual understanding tasks through: I plan to explore how incorporating textual knowledge into vision encoders can address inherent limitations in visual tasks while improving training efficiency. This research direction examines the synergistic relationship between textual and visual information.