Jian Xu

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EDUCATION BACKGROUND

University of Electronic Science and Technology of China **Chengdu, China**
Master's Degree in Communication and Information Systems *09/2017-06/2020*

- **GPA:** 3.57/4.0
- **Core Courses:** Matrix Theory, Graph Theory and Applications, Stochastic Processes, Advanced Computer Networks

Nanchang University **Nanchang, China**
Bachelor's Degree in Communications Engineering *09/2013-06/2017*

- **GPA:** 3.37/4.0
- **Core Courses:** Advanced Mathematics, Linear Algebra, Probability Theory and Mathematical Statistics

RESEARCH EXPERIENCES

High-Performance Framework for Multimodal Image Fusion

First author, under revision *05/2024-09.2024*

This research introduces the DAF-Net, a dual-branch feature decomposition fusion network that effectively combines key features from infrared and visible images by incorporating Multi-Kernel Maximum Mean Discrepancy (MK-MMD) and a hybrid kernel function, significantly improving the quality and performance of fused image.

- Conducted a comprehensive literature review on the latest advancements in image fusion methods, focusing on addressing modality alignment challenges in current multimodal image fusion techniques.
- Developed a detailed research plan, which included outlining methods for investigation, defining model architectures, setting project milestones, and designing experimental protocols.
- Authored experimental code and independently carried out experiments to test hypotheses and validate the research.
- Verified the effectiveness of this modality alignment method, resulting in a universal approach to enhance the alignment between modalities, and authored a comprehensive research paper documenting the results and conclusions.

PUBLICATIONS

- **Xu, Jian**, and Xin He. "DAF-Net: A Dual-Branch Feature Decomposition Fusion Network with Domain Adaptive for Infrared and Visible Image Fusion." *arXiv preprint arXiv:2409.11642 (2024)*. (**Under review** at the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP))

WORK EXPERIENCES

RingCentral Co., Ltd. **Xiamen, China**
Software Development Engineer in Test *07/2021-11/2023*

- Developed an automated testing tool that significantly improved the company's automation testing efficiency.
- Participated in drafting automated testing scripts for the company to evaluate the functionality of the website pages.

Alibaba Group **Hangzhou, China**
Backend Development Engineer *06/2020-07/2021*

- Led the development of an advertising platform with daily traffic exceeding ten million visits.
- Developed a funds settlement system for several company products, providing settlement services for over 300,000 users.

HONORS & AWARDS

- National First Prize, China Undergraduate Mathematical Contest in Modeling 2014
- Honorable Mention, The Mathematical Contest in Modeling (MCM) 2015
- Outstanding Graduate, Nanchang University 2017
- Third-Class Postgraduate Scholarship, University of Electronic Science and Technology of China 2020
- First-Class Postgraduate Scholarship, University of Electronic Science and Technology of China 2018

SKILLS

Programming: Python, Java, JavaScript, Shell, Matlab

Machine learning Framework: PyTorch, TensorFlow

Language: TOEFL 91