

Xiaofan Que
Curriculum Vitae

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EDUCATION

Ph. D. in Computer Information and Sciences

Year of completion: 2025

Rochester Institute of Technology

Research Interest: Learning to learn with noisy labels, few-shot learning, meta-learning, PAC-Bayesian analysis, long-tailed distribution, object detection.

M.S. in Computer Science

Year of completion: 2018

University of Electronic Science and Technology of China

Thesis: Research Based on Multi-source Non-negative Matrix Factorization.

Research Interest: Self-paced learning, multi-source learning

B.S. in Computer Science

Year of completion: 2015

University of Electronic Science and Technology of China

Thesis title: Multi-source Multi-task learning Based on Alzheimer's Disease.

Research Interest: Multi-task learning, Alzheimer's disease analysis

EMPLOYMENT

Senior Research Assistant

Year-Year: 2018-2019

The University of Hong Kong

Zhejiang Institute of Research and Innovation, Artificial Intelligence and Big Data Lab

Hangzhou China

Graduate Research Assistant

Year-Year: 2019-2024

Rochester Institute of Technology, Rochester NY

Department of Computer Information and Sciences

Technical Skills

Machine Learning

- Deep Learning Framework: Pytorch
- Object Detection Framework: MMDetection, detectron2

Software Programming

- Tools: C++, Java, Python, R, Matlab, SQL, Tableau, Unix, CUDA
- Courses: Data Structure, Parallel Computing, Distributed Systems, Embedded System, Database, Assembly Language Programming, Software Development Environment

PUBLICATIONS

Conference Proceedings and Journal Article

- [1] **Que, Xiaofan**, Qi Yu. "Dual-Level Curriculum Meta-Learning for Noisy Few-Shot Learning Tasks." In Proceedings of the *AAAI* Conference on Artificial Intelligence. 2024. **AAAI2024**
- [2] **Que, Xiaofan**, and Qi Yu. "Optimal Transport of Diverse Unsupervised Tasks for Robust Learning from Noisy Few-Shot Data." European Conference on Computer Vision. Springer, Cham, 2024. **ECCV2024**
- [3] **Que, Xiaofan**, Yazhou Ren, Jiayu Zhou, and Zenglin Xu. "Regularized multi-source matrix factorization for diagnosis of alzheimer's disease." In Neural Information Processing: 24th International Conference, *ICONIP*

2017, Guangzhou, China, November 14-18, 2017, Proceedings, Part I 24, pp. 463-473. Springer International Publishing, 2017.

[4] Ren, Yazhou, **Xiaofan Que**, Dezhong Yao, and Zenglin Xu. "Self-paced multi-task clustering." *Neurocomputing* 350 (2019): 212-220.

[5] Liu, Yang, **Xiaofan Que**, Dingrong Wang, Samuel A. Malachowsky, and Daniel E. Krutz. "Accessible Learning Labs: Accessibility Education Through Experiential Learning." In 2024 36th International Conference on Software Engineering Education and Training (CSEE&T), pp. 1-2. IEEE, 2024.

[6] Liu, Yang, **Xiaofan Que**, Dingrong Wang, Samuel A. Malachowsky, and Daniel E. Krutz. "Presenting Experiential Educational Machine Learning Labs." In 2024 36th International Conference on Software Engineering Education and Training (CSEE&T), pp. 1-2. IEEE, 2024.

[7] Zhu, Yuansheng, Weishi Shi, Deep Shankar Pandey, Yang Liu, **Xiaofan Que**, Daniel E. Krutz, and Qi Yu. "Uncertainty-Aware Multiple Instance Learning from Large-Scale Long Time Series Data." In 2021 IEEE International Conference on Big Data (*Big Data*), pp. 1772-1778. IEEE, 2021.

Manuscripts in Review

[1] Instance-Balanced Meta-Learning for Fine-Grained Categorization of Long-Tailed Noisy Services. TSC

In this work, we aim to solve the **long-tailed and noisy web service classification** problem by data cleansing and augmentation. **Few-shot learning** and **meta-learning** strategies are leveraged for maintaining the instance-balance. The implementation is based on **Python/PyTorch**.

[2] Open-vocabulary Object Detection with Adaptive Prompts. In this work, we make use of **prompting** technology to improve open-vocabulary object detection performance based on **YOLO-World** framework, which is a SOTA real-time open-vocabulary object detector through **vision-language modeling** and pre-training on large-scale datasets.

[3] Source-free Object Detection. In this work, we utilize **text-to-image synthesis** to address source-free object detection, aiming at privacy preservation, and efficient data transmission.

SERVICE TO PROFESSION

Conference Manuscript Review

Year: 2025

The Thirteenth International Conference on Learning Representations

Journal Manuscript Review

Year: 2024

IEEE Transactions on Cognitive and Developmental Systems

Journal Manuscript Review

Year: 2024

IEEE Transaction of Services on Computing

Journal Manuscript Review

Year: 2023

IEEE Transactions on Cognitive and Developmental Systems