

Jiayi Shen

🏠 1996 | ✉ j.shen@uva.nl | 🌐 https://jiayishen.info | 🕒 autumn9999 | 📍 Amsterdam, Netherlands

Professional Summary

As a Ph.D. candidate at the University of Amsterdam, I focus on **multi-task learning**, developing models using **probabilistic modelling, graphical learning, and meta-learning**, specifically neural processes. My current work includes adapting multimodal foundation models and multi-task optimization. My Master's project experience encompasses transfer learning and zero-shot learning.

Education

University van Amsterdam

PhD in CS. Research topics: multi-task learning. Advisor: Marcel Worring.

Amsterdam

June. 2020 - Oct. 2024

Beihang University

MS in EE. Research topics: transfer learning and zero-shot learning. Advisor: Xianbin Cao.

Beijing

Sep. 2017 - Feb. 2020

Beihang University

BS in EE.

Beijing

Sep. 2013 - Jun. 2017

Publications

- [1] **Shen, Jiayi** and Zehao Xiao and Wang, Cheems and Nanne, van Noord and Worring, Marcel "GO4Align: Group Optimization for Multi-Task Alignment," [NeurIPS submission, 2024.] (scores: 7765)
- [2] **Shen, Jiayi** and Zhen, Xiantong and Wang, Cheems and Worring, Marcel "Episodic Multi-Task Learning with Heterogeneous Neural Processes," [NeurIPS, 2023.] **Spotlight.**
- [3] **Shen, Jiayi** and Xiao, Zehao and Zhen, Xiantong and Snoek, Cees and Worring, Marcel "Association Graph Learning for Multi-Task Classification with Category Shifts," [NeurIPS, 2022.]
- [4] **Shen, Jiayi** and Zhen, Xiantong and Worring, Marcel and Shao, Ling "Variational Multi-Task Learning with Gumbel-Softmax Priors," [NeurIPS, 2021.]
- [5] Xiao*, Zehao and **Shen*, Jiayi** and Zhen, Xiantong and Shao, Ling and Snoek, Cees "A Bit More Bayesian: Domain-Invariant Learning with Uncertainty." [ICML, 2021.] (co-first author)
- [6] **Shen, Jiayi** and Xiao, Zehao and Zhen, Xiantong and Zhang, Lei "Spherical Zero-Shot Learning," [IEEE Trans. CSVT, 2021.]
- [7] **Shen, Jiayi** and Wang, Haochen and Zhang, Anran and Qiu, Qiang and Zhen, Xiantong and Cao, Xianbin "Model-Agnostic Metric for Zero-Shot Learning," [WACV, 2020.]
- [8] **Shen, Jiayi** and Cao, Xianbin and Li, Yan and Xu, Dong "Feature Adaptation and Augmentation for Cross-Scene Hyperspectral Image Classification," [IEEE GRSL, 2018.]
- [9] Xiao, Zehao and **Shen, Jiayi** and Derakhshani, Mohammad Mahdi and Liao, Shencai and Snoek, Cees. "Any-Shift Prompting for Generalization over Distributions," [CVPR 2024]
- [10] Du, Yingjun and **Shen, Jiayi** and Zhen, Xiantong and Snoek, Cees "SuperDisco: Super-Class Discovery Improves Visual Recognition for the Long-Tail," [CVPR, 2023.]
- [11] Du, Yingjun and **Shen, Jiayi** and Zhen, Xiantong and Snoek, Cees "EMO: Episodic Memory Optimization for Few-Shot Meta-Learning," [COLLAs, 2023.]
- [12] Wang, Haochen and **Shen, Jiayi** and Liu, Yongtuo and Gao, Yan and Gavves, Efstratios "NFormer: Robust Person Re-identification with Neighbor Transformer," [CVPR, 2022.]
- [13] Zhang, Lei and Du, Yingjun and **Shen, Jiayi** and Zhen, Xiantong "Learning to Learn with Variational Inference for Cross-Domain Image Classification," [IEEE Trans. Multimedia, 2022.]
- [14] Zhang, Anran and **Shen, Jiayi** and Xiao, Zehao and Zhu, Fan and Zhen, Xiantong and Cao, Xianbin and Shao, Ling "Relational Attention Network for Crowd Counting," [ICCV, 2019.]
- [15] Zhang, Anran and Yue, Lei and **Shen, Jiayi** and Zhu, Fan and Zhen, Xiantong and Cao, Xianbin and Shao, Ling "Attentional Neural Fields for Crowd Counting," [ICCV, 2019.]

Awards and Honors

2020 **Scholarship:** "National Scholarship for Postgraduates"

Beijing

2020 **Honorary Title:** "Outstanding Postgraduates of Beihang University"

Beijing

2017 **Honorary Title:** "Outstanding Graduates of Beihang University"

Beijing

Volunteer Services

Journal Reviewer

TPAMI, TIP

Conference Reviewer

NeurIPS24, ECCV24, ICML24, CVPR24, NeurIPS23, ICCV23, CVPR23, AAAI21, CVPR20