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 modeling, graphical learning, and meta-learning, specifically neural processes. My current work includes adapting multimodal foundation models for downstream tasks, with two papers submitted to CVPR 2024; and multi-task optimization, with one paper submitted to ICML 2024. My Master's project experience encompasses **transfer learning and zero-shot learning**.

Education

University van Amsterdam	*Amsterdam*
PhD in CS	June. 2020 - Sep. 2024
Beihang University	*Beijing*
MS in EE	Sep. 2017 - Feb. 2020
Beihang University	*Beijing*
BS in EE	Sep. 2013 - Jun. 2017

Publications

[1] **Shen, Jiayi** and Zhen, Xiantong and Wang, Cheems and Worring, Marcel "Episodic Multi-Task Learning with Heterogeneous Neural Processes," [*NeurIPS*, 2023.] Spotlight.

[2] **Shen, Jiayi** and Xiao, Zehao and Zhen, Xiantong and Snoke, Cees and Worring, Marcel "Association Graph Learning for Multi-Task Classification with Category Shifts," [*NeurIPS*, 2022.]

[3] **Shen, Jiayi** and Zhen, Xiantong and Worring, Marcel and Shao, Ling "Variational Multi-Task Learning with Gumbel-Softmax Priors," [*NeurIPS*, 2021.]

[4] 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)

[5] **Shen, Jiayi** and Xiao, Zehao and Zhen, Xiantong and Zhang, Lei "Spherical Zero-Shot Learning," [*IEEE Trans. CSVT*, 2021.]

[6] **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.]

[7] **Shen, Jiayi** and Cao, Xianbin and Li, Yan and Xu, Dong "Feature Adaptation and Augmentation for Cross-Scene Hyperspectral Image Classification," [*IEEE GRSL*, 2018.]

[8] Xiao, Zehao and **Shen, Jiayi** and Derakhshani, Mohammad Mahdi and Liao, Shencai and Snoek, Cees. "Any-Shift Prompting for Generalization over Distributions," [*CVPR 2024 submission*]

[9] Du, Yingjun and **Shen, Jiayi** and Zhen, Xiantong and Snoek, Cees "SuperDisco: Super-Class Discovery Improves Visual Recognition for the Long-Tail," [*CVPR*, 2023.]

[10] Du, Yingjun and **Shen, Jiayi** and Zhen, Xiantong and Snoek, Cees "EMO: Episodic Memory Optimization for Few-Shot Meta-Learning," [*CoLLAs*, 2023.]

[11] Wang, Haochen and **Shen, Jiayi** and Liu, Yongtuo and Gao, Yan and Gavves, Efstratios "NFormer: Robust Person Re-identification with Neighbor Transformer," [*CVPR*, 2022.]

[12] 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.]

[13] 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.]

[14] 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
ICML24, CVPR24, NeurIPS23, ICCV23, CVPR23, AAAI21, CVPR20