Haizhou Shi

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Research Interests Uncertainty Estimation, Continual Training, and Representation Learning in ML Models.

Education Rutgers University New Jersey, US

Ph.D in Computer Science, focusing on Machine Learning Sept. 2022 – Present

Advisor: Professor Hao Wang.

Zhejiang University Hangzhou, China

M.Eng in Computer Science and Technology Sept. 2019 – June 2022

Advisors: Professors Siliang Tang, Yueting Zhuang.

**Zhejiang University** Hangzhou, China

B.Eng in Computer Science and Technology Sept. 2015 – June 2019

Mentors: Professors Siliang Tang, Yueting Zhuang.

Under Review (2024) Training-Free Bayesianization for Low-Rank Adapters of Large Language Models.

Haizhou Shi\*, Yibin Wang\*, Ligong Han, Huan Zhang, Hao Wang.

ICLR-W'25, arXiv preprint at arXiv:2412.05723

Publication (2025) The Hidden Life of Tokens: Reducing Hallucination of Large Vision-Language

Models via Visual Information Steering.

Zhuowei Li, **Haizhou Shi**, Yunhe Gao, Di Liu, Zhenting Wang, Yuxiao Chen, Ting Liu, Long Zhao, Hao

Wang, Dimitris N. Metaxas.

ICML'25, arXiv preprint at arXiv:2502.03628

(2025) Continual Learning of Large Language Models: A Comprehensive Survey.

**Haizhou Shi**, Zihao Xu, Hengyi Wang, Weiyi Qin, Wenyuan Wang, Yibin Wang, Zifeng Wang, Sayna Ebrahimi, Hao Wang.

ACM Computing Surveys, arXiv preprint at arXiv:2404.16789

(2024) BLoB: Bayesian Low-Rank Adaptation by Backpropagation for LLMs.

Yibin Wang\*, Haizhou Shi\*, Ligong Han, Dimitris Metaxas, Hao Wang.

NeurIPS'24, arXiv preprint at arXiv:2406.11675

(2023) A Unified Approach to Domain Incremental Learning with Memory: Theory and

Algorithm.

Haizhou Shi, Hao Wang.

NeurIPS'23, arXiv preprint arXiv:2310.12244

(2021) On the Efficacy of Small Self-Supervised Contrastive Models without Distillation

Signals.

Haizhou Shi, Youcai Zhang, Siliang Tang, Wenjie Zhu, Yaqian Li, Yandong Guo, Yueting Zhuang.

AAAI'22 oral, arXiv preprint arXiv:2107.14762

# (2021) Towards Communication-Efficient and Privacy-Preserving Federated Representation Learning.

**Haizhou Shi**, Youcai Zhang, Zijin Shen, Siliang Tang, Yaqian Li, Yandong Guo, Yueting Zhuang. *FL-AAAI-22 oral, arXiv preprint arXiv:2109.14611* 

# (2021) CIL: Contrastive Instance Learning Framework for Distantly Supervised Relation Extraction.

Tao Chen, Haizhou Shi, Siliang Tang, Zhigang Chen, Fei Wu, and Yueting Zhuang.

ACL'21, arXiv preprint arXiv:2106.10855

### (2019) Informative Visual Storytelling with Cross-Modal Rules.

Jiacheng Li, Haizhou Shi, Siliang Tang, Fei Wu, Yueting Zhuang.

ACM-MM'19, Proceedings of the 27th ACM International Conference on Multimedia

# (2020) Unsupervised Reinforcement Learning of Transferable Meta-Skills for Embodied Navigation.

Juncheng Li, Xin Wang, Siliang Tang, **Haizhou Shi** and Fei Wu, Yueting Zhuang, William Yang Wang. CVPR'20, Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition

#### **Pre-print**

### (2021) Revisiting Catastrophic Forgetting in Class Incremental Learning.

Zixuan Ni\*, Haizhou Shi\*, Siliang Tang, Yueting Zhuang.

arXiv preprint arXiv:2107.12308

# (2020) Run Away From your Teacher: Understanding BYOL by a Novel Self-Supervised Approach.

Haizhou Shi\*, Dongliang Luo\*, Siliang Tang, Jian Wang, Yueting Zhuang.

arXiv preprint arXiv:2011.10944

#### **Work Experience**

### Machine Learning Research Intern, at Morgan Stanley.

New York, US

Mentors: Marin Bilos, Kashif Rasul.

June 2024 - Aug. 2024

Led the research project on lifelong time series forecasting.

#### Research Intern, at OPPO Research Institute.

Shanghai, China

Mentors: Youcai Zhang, Yandong Guo.

Dec. 2020 - Nov. 2021

Led the research on self-supervised learning for lightweight backbones (paper available here).

Led the research on federated self-supervised learning (paper available here).

### Research Intern, at Intel Asia-Pacific Research & Development LTD. Shanghai, China

Mentors: Shengsheng Huang, Jinquan Dai.

Apr. 2019 – Aug. 2019

Conducted reinforcement learning research on the google football simulated environment, benchmarked multiple existing frameworks including DQN, PG, and IMPALA.

#### Service & Outreach

#### Life-long Fellow, at Melton Foundation.

June 2016 – Present

Learned and practiced the concept of the global citizenship. Participated multiple global conferences on promoting and enabling global citizenship as a way for individuals and organizations to work together across boundaries of place and identity to address global challenges.

#### Reviewer, at Academic Conferences

Provided review services for multiple top-notched ML&AI conferences, including *ICML*'25, *ICLR*'25, *ACL ARR*'25, *AAAI*'25, *NeurIPS*'24, *ECCV*'24, *IJCAI*'24, *AAAI*'24, *AAAI*'23, *ICCV*'23, *ECCV*'22.