HAO YAN

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EDUCATION

Carleton University   Ottawa, Canada
Ph.D. candidate of Computer Science   *September 2019 - December 2024*
Thesis: Cross Domain Model Adaptation and Generalization.
Supervisor: Dr. Yuhong Guo.

Beijing University of Posts and Telecommunications   Beijing, China
Master of Information and Communication Engineering   *September 2016 - June 2019*
Thesis: Beam Management Technology based on Millimeter Wave and Distributed Antenna Array.
Supervisor: Dr. Danpu Liu.

Wuhan University of Technology   Wuhan, China
Bachelor of Communication Engineering   *September 2012 - June 2016*

PUBLICATIONS

Conference Papers

- **Hao Yan**, Yuhong Guo. "Local and Global Flatness for Federated Domain Generalization." European Conference on Computer Vision (ECCV), 2024.

- **Hao Yan**, Yuhong Guo. "Dual Moving Average Pseudo-Labeling for Source-Free Inductive Domain Adaptation." British Machine Vision Conference (BMVC), 2022.

- **Hao Yan**, Yuhong Guo, Chunsheng Yang. "Source-Free Unsupervised Domain Adaptation with Surrogate Data Generation." British Machine Vision Conference (BMVC), 2021.

Workshop Papers

- **Hao Yan**, Yuhong Guo. "Lightweight Unsupervised Federated Learning with Pretrained Vision Language Model." International Workshop on Federated Learning in the Age of Foundation Models at IJCAI 2024.

- **Hao Yan**, Yuhong Guo. "Context-Aware Self-Adaptation for Domain Generalization." In 2nd Workshop on New Frontiers in Adversarial Machine Learning at ICML 2023.

- **Hao Yan**, Yuhong Guo, Chunsheng Yang. "Augmented Self-Labeling for Source-Free Unsupervised Domain Adaptation." Workshop on Distribution Shifts: Connecting Methods and Applications at NeurIPS 2021.

- **Hao Yan**, Danpu Liu. Multiple RF Chains Assisted Parallel Beam Search for mmWave Hybrid Beamforming Systems. GLOBECOM Workshop 2018.

Under Review

- **Hao Yan**, Marzi Heidari, Yuhong Guo. "Single Domain Generalization with Adversarial Memory." Under Review.

- Abdullah Alchihabi, **Hao Yan**, Yuhong Guo. "Overcoming Class Imbalance: Unified GNN Learning with Structural and Semantic Connectivity Representations." Under Review.

- Marzi Heidari, Abdullah Alchihabi, **Hao Yan**, Yuhong Guo. "A Unified Framework for Heterogeneous Semi-supervised Learning." Under Review.

EXPERIENCE

Larus Technologies Ottawa, Canada
Data Scientist Intern *August 2024 - Present*

- Design, train and evaluate various computer vision models for commercial application scenarios.

Realtime 7 Inc. Toronto, Canada
Machine Learning Engineer Part-time Intern *April 2022 - July 2024*

- Design, train and deploy Deep Learning models for mobile and edge devices with NPU acceleration. Typical tasks include Object Detection, Face Recognition, Pose Estimation, Stereo Matching, Structure from Motion, etc. Practical frameworks include TensorFlow/ Keras, TensorFlow Lite and PyTorch.

Carleton University Ottawa, Canada
Research Assistant *September 2019 - Present*

- Research on Deep Learning topics including Domain Adaptation and its application on Computer Vision tasks, Source-Free Domain Adaptation, Domain Generalization, Federated Learning, Long-Tailed Learning, Self-Supervised Learning, Vision-Language Models, Diffusion Models, Language Models, etc.

Carleton University Ottawa, Canada
Teaching Assistant *September 2019 - Present*

- COMP4102 Computer Vision; COMP3801 Algorithms for Model Data Sets; COMP3106 Introduction to Artificial Intelligence; COMP2804 Discrete Structures II.

Didi Chuxing Technology Co. Beijing, China
Deep Learning Algorithm Engineer Intern *March 2019 - June 2019*

- Research and design Transfer Learning algorithms for Computer Vision tasks.

PROFESSIONAL SERVICES

Conference Reviewer: ICML, NeurIPS, AAAI.
Journal Reviewer: Artificial Intelligence.