Dapeng Hu

+65-90747349 | lhxxhb15@gmail.com | Scholar | Homepage | LinkedIn

EDUCATION

National University of Singapore — Singapore
Ph.D. in Signal Analysis & Machine Intelligence — *January 2019 – May 2023*
Advisor: Xinchao Wang

Nanjing University — Nanjing, China
B. Sc. in Electronic Information Science and Technology — *August 2013 – June 2017*
GPA: 4.47/5.00, Rank: 3/56

PUBLICATIONS

UMAD: Universal Model Adaptation under Domain and Category Shift
Jian Liang*, **Dapeng Hu***, Jiashi Feng, Ran He
arXiv, 2021 [PDF]

DINE: Domain Adaptation from Single and Multiple Black-box Predictors
Jian Liang, **Dapeng Hu**, Jiashi Feng, Ran He
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022 [PDF]

How Well Does Self-Supervised Pre-Training Perform with Streaming Data?
Dapeng Hu*, Shipeng Yan*, Qizhengqiu Lu, Lanqing Hong[†], Hailin Hu, Yifan Zhang, Zhenguo Li, Xinchao Wang[†], Jiashi Feng
International Conference on Learning Representations (ICLR), 2022 [PDF]

Adversarial Domain Adaptation With Prototype-Based Normalized Output Conditioner
Dapeng Hu, Jian Liang[†], Hanshu Yan, Qibin Hou, Yunpeng Chen
IEEE Transactions on Image Processing (TIP), 2021 [PDF]

Source Data-absent Unsupervised Domain Adaptation through Hypothesis Transfer and Labeling Transfer
Jian Liang, **Dapeng Hu**, Yunbo Wang, Ran He, Jiashi Feng
IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021 [PDF]

No Fear of Heterogeneity: Classifier Calibration for Federated Learning with Non-IID Data
Mi Luo, Fei Chen, **Dapeng Hu**, Yifan Zhang, Jian Liang, Jiashi Feng
Advances in Neural Information Processing Systems (NeurIPS), 2021 [PDF]

Unleashing the Power of Contrastive Self-Supervised Visual Models via Contrast-Regularized Fine-Tuning
Yifan Zhang, Bryan Hooi, **Dapeng Hu**, Jian Liang, Jiashi Feng
Advances in Neural Information Processing Systems (NeurIPS), 2021 [PDF]

Domain Adaptation with Auxiliary Target Domain-Oriented Classifier
Jian Liang, **Dapeng Hu**, Jiashi Feng
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021 [PDF]

Do We Really Need to Access the Source Data? Source Hypothesis Transfer for Unsupervised Domain Adaptation
Jian Liang, **Dapeng Hu**, Jiashi Feng
International Conference on Machine Learning (ICML), 2020 [PDF]

A Balanced and Uncertainty-aware Approach for Partial Domain Adaptation
Jian Liang, Yunbo Wang, **Dapeng Hu**, Ran He, Jiashi Feng
European Conference on Computer Vision (ECCV), 2020 [PDF]

Experience

TikTok Singapore
Research Intern *November 2021 – Present*

- Developed efficient fine-tuning algorithms based on released self-supervised pre-trained models.

Huawei Noah's Ark Lab Singapore
Research Intern (Remote) *October 2020 - March 2021*

- Conducted the first thorough empirical study on practical continual self-supervised pre-training.
- The research paper has been accepted to *International Conference on Learning Representations, 2022*.

YITU Tech Singapore
Research Intern *December 2019 - March 2020*

- Developed a generic domain adaptation method for both image classification and segmentation.
- The research paper has been published in *IEEE Transactions on Image Processing, 2021*.

National University of Singapore Singapore
Research Engineer *March 2018 - January 2019*

- Co-organized the *MHP* challenge with *CVPR 2018 L.I.P* workshop. Mainly responsible for the homepage design and implementation of *MHP challenge* and evaluation of participants.
- Participated in *Google AI Open Images - Object Detection Track* and achieved 11th out of 452 teams.

Nanjing SkyData InfoTech Ltd. Nanjing, China
Data Mining Engineer *July 2017 - March 2018*

- Applied deep learning methods such as *U-Net* to medical image diagnosis in collaboration with hospitals.

Professional Service

Reviewer
ICML 2021-2022, NeurIPS 2021-2022, CVPR 2022, ICLR 2022-2023, TMLR 2022

Teaching Assistant
NUS EE6934: Deep Learning (Advanced) *2020 Spring*
NUS EE5934: Deep Learning *2020 Spring*
NUS EE4704: Image Processing and Analysis *2019 Fall*
NUS EE2028: Microcontroller Programming and Interfacing *2019 Fall*

Awards & Honors

ICML Outstanding Reviewers (Top 10%) *2022*
NUS Research Scholarship *2019-2023*
Outstanding Graduate of Nanjing University *2017*
Yang Scholarship *2015*
People's Scholarship *2014*
Merit Student of Jiangsu Province *2013*

Technical Skills

Programming Languages: Python, Java, C/C++, MATLAB, HTML/CSS, Bash
Tools and Frameworks:: LaTeX, Git, PyTorch, TensorFlow