# Dapeng Hu

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## **EDUCATION**

National University of Singapore

Singapore

Ph.D. in Signal Analysis & Machine Intelligence

January 2019 - January 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<sup>†</sup>, Hailin Hu, Yifan Zhang, Zhenguo Li, Xinchao Wang<sup>†</sup>, Jiashi Feng

International Conference on Learning Representations (ICLR), 2022 [PDF]

Adversarial Domain Adaptation With Prototype-Based Normalized Output Conditioner

Dapeng Hu, Jian Liang<sup>†</sup>, 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]

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

$NUS\ EE 6934:\ Deep\ Learning\ (Advanced)$	$2020 \; Spring$
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