# NBEI ZHAI

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### **EDUCATION**

#### Tulane University

Ph.D. student in Computer Science • Advisor: Jihun Hamm

#### Osaka University

B.S. in Mathematics Osaka University Award of Excellence

#### Peking University

• Incomplete

#### **PROFESSIONAL EXPERIENCE**

#### Tulane University

Research Assistant (Supervisor: Jihun Hamm) • Out-of-Distribution Generalization, Test-Time Adaptation

#### • Tulane University

Teaching Assistant (Supervisor: Saad Hassan)

- Introduction to Data Science (CMPS 3160/CMPS 6160)
- Outstanding Teaching Assistant Award

#### **PUBLICATIONS**

#### Analysis of task transferability in large pre-trained classifiers [C.5] Akshay Mehra, Yunbei Zhang, Jihun Hamm Neural Information Processing Systems (NeurIPS), 2024.

- **OT-VP: Optimal Transport-guided Visual Prompting for Test-Time Adaptation** [C.4] Yunbei Zhang, Akshay Mehra, Jihun Hamm IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2025.
- Dynamic Domains, Dynamic Solutions: DPCore for Continual Test-Time Adaptation [**P.1**] Yunbei Zhang, Akshay Mehra, Jihun Hamm Preprint.
- [C.3] Test-time Assessment of a Model's Performance on Unseen Domains via Optimal Transport Akshay Mehra, Yunbei Zhang, Jihun Hamm CVPR Workshop on Fair, Data-efficient, and Trusted Computer Vision(CVPRW), 2024.
- Achieving Reliable and Fair Skin Lesion Diagnosis via Unsupervised Domain Adaptation [C.2] Janet Wang, Yunbei Zhang, Zhengming Ding, Jihun Hamm CVPR Workshop on Domain Adaptation, Explainability, Fairness in AI for Medical Image Analysis (CVPRW), 2024.
- [C.1] On the Fly Neural Style Smoothing for Risk-Averse Domain Generalization Akshay Mehra, Yunbei Zhang, Bhavya Kailkhura, Jihun Hamm IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2024.

### **HONORS & AWARDS**

• Outstanding Teaching Assistant Award Tulane University	2024
• Ichikawa International Scholarship Osaka University	2021
• Osaka University Award of Excellence Osaka University	2019
School of Science Honor Scholarship Osaka University	2018-2021
• Monbukagakusho Honors Scholarship for International Students Ministry of Education of Japan	2018, 2021

Aug 2022 - May 2027(Expected) New Orleans, United States

> Apr 2018 - Mar 2022 Osaka, Japan

Jul 2013 - May 2015 Beijing, China

Aug 2022 - Now New Orleans, United States

Jan 2024 - May 2024 New Orleans, United States

C=CONFERENCE, P=PREPRINT

## ACADEMIC SERVICES

#### Conference Reviewer

• IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2025

• International Conference on Learning Representations (ICLR), 2025

#### Journal Reviewer

• Journal of Imaging Informatics in Medicine

Volunteer

• Conference on Neural Information Processing Systems (NeurIPS) Outreach Program Volunteer, 2023

#### MISCELLANEOUS

- **Programming Languages:** Python, C++, Git, PyTorch, LATEX
- Languages: English, Japanese, Chinese