

# Hung-Chieh Fang

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## Education

**National Taiwan University (NTU)**

Sept 2020 – Present

B.S. in Computer Science and Information Engineering

Taipei, Taiwan

Thesis: “Uprooting Implicit Misalignment in Universal Domain Adaptation by Target-Integrated Representation Learning”.

- Best Bachelor Thesis in College of Electrical Engineering and Computer Science, NTU, 2024

Advisor: Prof. Hsuan-Tien Lin

## Selected Papers

(\* indicates equal contribution)

- [4] **Learning Skill Abstraction from Action-Free Videos via Optical Flow**  
**Hung-Chieh Fang\***, Kuo-Han Hung\*, Chu-Rong Chen, Po-Jung Chou, Chun-Kai Yang, Po-Chen Ko, Yu-Chiang Frank Wang, Yueh-Hua Wu, Min-Hung Chen, and Shao-Hua Sun  
*In submission of NeurIPS, 2025* [PDF]
- [3] **Soft Separation and Distillation: Toward Global Uniformity in Federated Unsupervised Learning**  
**Hung-Chieh Fang**, Hsuan-Tien Lin, Irwin King, and Yifei Zhang  
*International Conference on Computer Vision (ICCV), 2025* [PDF]
- [2] **Tackling Dimensional Collapse toward Comprehensive Universal Domain Adaptation**  
**Hung-Chieh Fang**, Po-Yi Lu, and Hsuan-Tien Lin  
*International Conference on Machine Learning (ICML), 2025* [PDF]
- [1] **Open-Domain Conversational Question Answering with Historical Answers**  
**Hung-Chieh Fang\***, Kuo-Han Hung\*, Chao-Wei Huang, and Yun-Nung Chen  
*Asian Chapter of the Association for Computational Linguistics (AACL), 2022* [PDF]

## Research Experience

**Intelligent and Interactive Autonomous Systems Group (ILIAD), Stanford University**

June 2025 – Present

Visiting Research Intern, advised by Prof. Dorsa Sadigh

Stanford, CA

- Researching on **robot learning for dexterous tasks** (ongoing).

**Robot Learning Lab (RLLab), NTU**

Nov 2024 – May 2025

Undergraduate Researcher, advised by Prof. Shao-Hua Sun

Taipei, Taiwan

- Researched on **skill-based robot learning from videos**. [4]
  - Learned skill abstractions from action-free videos to enable efficient multi-task learning and long-horizon planning.
  - Leveraged optical flow as a general representation for learning skill abstractions.

**Machine Intelligence & Social Computing (MISC) Lab, The Chinese University of Hong Kong**

July 2024 – Jan 2025

Visiting Student, advised by Prof. Irwin King, Dr. Yifei Zhang, Prof. Hsuan-Tien Lin

New Territories, Hong Kong

- Researched on **unsupervised learning with non-IID data**. [3]
  - Identified the bottleneck of limited representation expressiveness in non-IID settings as a lack of inter-client uniformity.
  - Proposed to regularize client embeddings toward a dimension-scaled subspace to effectively improve global uniformity.

**Computational Learning Lab (CLLab), NTU**

Feb 2023 – Mar 2025

Undergraduate Researcher, advised by Prof. Hsuan-Tien Lin

Taipei, Taiwan

- Researched on **universal domain adaptation**. [2]
  - Uncovered the dimensional collapse problem in universal domain adaptation.
  - Proposed using self-supervised loss to tackle dimensional collapse and improve robustness across scenarios.

- Machine Intelligence & Understanding Lab (MiuLab), NTU** Mar 2022 - Jan 2023  
*Undergraduate Researcher, advised by Prof. Yun-Nung (Vivian) Chen* Taipei, Taiwan
- Researched on **open-domain conversational question answering**. [1]
    - Proposed combining the signal from historical answers with the noise-reduction ability of knowledge distillation to improve information retrieval and question answering.
    - Awarded honorable mention in the 2022 NTU CSIE Undergraduate Research Exhibition.

## Teaching Experience

- EE5100: Introduction to Generative Artificial Intelligence, NTU** Jan 2024 – June 2024  
*Teaching Assistant* Taipei, Taiwan
- Designed homework on the *interpretability and explainability of large language models*. [Link]
- CSIE5043: Machine Learning, NTU** Feb 2023 – June 2023  
*Teaching Assistant* Taipei, Taiwan
- Co-designed ML algorithm homework about *theory of generalization* and a final project about *ordinal ranking problems* for 250+ students.
  - Held weekly TA hours to guide students on their assignments.

## Work Experience

- MediaTek Research** Jan 2023 – Mar 2023  
*Machine Learning Intern* Taipei, Taiwan
- Designed *personally identifiable information removal* workflows for large language models.
  - Studied the *best-arm identification problem in linear bandits*.

## Honors And Awards

- Dean's List Award, NTU CSIE** 2024  
*Top 5% of the CSIE department*
- Principal's Award, NTU Bachelor's Thesis Award** 2024  
*Top 2 theses among all graduates & the best thesis in the EECS College*
- Honorable Mention, NTU CSIE Undergraduate Research Award** 2022  
*Top 6 research projects in the CSIE Department*
- Special Award, LINE FRESH Hackathon** 2021  
*Top 5 out of 300+ teams*

## Selected Projects

- Zero-shot Text Behavior Retrieval [Report]** Nov 2023 – Jan 2024  
*Course Project of "Reinforcement Learning"* Taipei, Taiwan
- Proposed a text-based approach to retrieve task-relevant data from an offline dataset *without* any expert demonstration for *imitation learning*.
  - Enhanced retrieval accuracy and success rate across various simulated environments.
- Visually-Grounded Self-Supervised Learning for Speech Processing [ICASSPW'24]** Sept 2022 – Sept 2023  
*Course Project of "Deep Learning for Human Language Processing", advised by Prof. Hung-yi Lee, Prof. David Harwath* Taipei, Taiwan
- Proposed using vision as a surrogate for paired transcripts to enrich the semantic information in self-supervised speech models.
  - Demonstrated the benefits of joint training with frame-level and word-level units for capturing semantic information.