

LI-HENG LIN

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EDUCATION

- Stanford University** Stanford, CA, USA
M.S. in Computer Science 06/2024 (Expected)
- Cumulative GPA: **4.01**/4.30
 - Relevant Courses: Parallel Computing (A+), Deep Multi-Task and Meta Learning, Deep Reinforcement Learning, Mining Massive Datasets
- National Taiwan University (NTU)** Taipei City, Taiwan
B.S. in Computer Science and Information Engineering 01/2022
- Cumulative GPA: **4.12**/4.30, Major GPA: **4.15**/4.30, Overall Ranking: **19/181 (10.5%)**

RESEARCH EXPERIENCE

- Stanford Intelligent and Interactive Autonomous Systems Group** Stanford, CA, USA
Graduate Research Assistant, Advisor: Prof. Dorsa Sadigh 09/2022 - Present
- Few-shot Imitation Learning by Retrieving Prior Experiences
 - Retrieved data with similar motion by using optical flow.
 - Proposed an auxiliary reconstruction loss to encourage diffusion policies better utilizing retrieved data.
 - Gesture-Informed Robot Assistance [1]
 - Enabled robots to understand human gestures by prompting Large Language Models.
 - Conducted a user study of 11 people and achieved 70% higher success rates than baseline.
- NTU Computational Learning Lab** Taipei City, Taiwan
Undergraduate Research Assistant, Advisors: Prof. Hsuan-Tien Lin, Dr. Chun-Liang Li 06/2020 - 01/2022
- Practical Guide for Deep Active Learning (DAL)
 - Investigated the effect of several design choices (model initialization, hyper-parameters tuning) in DAL.
- NTU Cyber-Physical Systems Lab** Taipei City, Taiwan
Undergraduate Research Assistant, Advisors: Prof. Chung-Wei Lin, Prof. Hui-Ru Jiang 09/2019 - 01/2022
- Improving Robustness of Graph-based Intelligent Intersection Management System
 - Ensured deadlock free by proposing a protection mechanism based on limiting the number of vehicles.
 - Reduced vehicle wait time by 52% on average compared to traditional traffic light systems.

SELECTED PUBLICATIONS

- [1] **Li-Heng Lin**, Yuchen Cui, Yilun Hao, Fei Xia, Dorsa Sadigh, "Gesture-Informed Robot Assistance via Foundation Models", Conference on Robot Learning (CoRL) 2023

WORK EXPERIENCE

- Google Inc.** New Taipei City, Taiwan
Software Engineering Intern, Host: Richard Chang 06/2021 - 09/2021
- Braille Image Translator
 - Implemented an Android application that translates an image of a braille device into its corresponding text.

PROJECTS

- C++ Attention: Implemented several ways to compute attention (blocked, fused, flash attention) in C++ with parallelization using OpenMP.
- Efficient CUDA circles renderer: Implemented CUDA render that parallelizes over pixels and circles and achieved top 15% performance on the leaderboard.

SKILLS

- Programming Languages: Python, C++, CUDA, Java, C
- Python Packages: PyTorch, Jax