

Tzu-Hsien Tsai

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EDUCATION

National Taiwan University
Master of Science in Computer Science

Sep. 2024 – Present
Taipei, Taiwan (R.O.C.)

National Taiwan University
Bachelor of Science in Computer Science
Overall GPA: 3.99

Sep. 2019 – Jun. 2023
Taipei, Taiwan (R.O.C.)

PUBLICATIONS

- M.-Y. Chiang, T.-H. Tsai, D.-Y. Hong, P. Liu, and J.-J. Wu, Optimizing Pipeline Parallelism for Deep Learning with Activation Checkpointing, to appear in *13th International Symposium on Computing and Networking (CANDAR)*, 2025.
- D.-Y. Hong, T.-H. Tsai, N. Wang, P. Liu, and J.-J. Wu, GPU Memory Usage Optimization for Backward Propagation in Deep Network Training, *Journal of Parallel and Distributed Computing (JPDC)*, 199:105053, 2025.
- C.-F. Lin, D.-Y. Hong, P. Liu, J.-J. Wu and T.-H. Tsai, A Grouping Algorithm for Training Tree-Shaped Models on Multiple GPUs with High Efficiency, in *IEEE 49th Annual Computers, Software, and Applications Conference (COMPSAC)*, July 8–11, 2025, Toronto, ON, Canada, pages 1595–1600, 2025.
- Y.-D. Tsai, T.-H. Tsai, and S.-D. Lin, Differentiable Good Arm Identification, in *29th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, June 10–13, 2025, Sydney, NSW, Australia, pages 253–264, 2025.
- T.-H. Tsai, Y.-D. Tsai, and S.-D. Lin, Lil’HDoC: An Algorithm for Good Arm Identification under Small Threshold Gap, in *28th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*, May 7–10, 2024, Taipei, TW, Taiwan, pages 78–89, 2024.

WORK EXPERIENCE

DeepHow Inc.
Research and Development Engineer

Aug. 2021 – Feb. 2022 and Feb. 2023 – Jun. 2023
Online

- Decide the position of line breaks in the subtitles of videos.
- Improve the accuracy of segmenting a tutorial video into steps.

C Programming Course
Teaching Assistant

Sep. 2024 – Dec. 2024
National Taiwan University

Calculus Course
Teaching Assistant

Sep. 2024 – Dec. 2025
National Taiwan University

Beauty of Mathematics Course
Teaching Assistant

Feb. 2022 – Dec. 2022
National Taiwan University

AWARDS

Dean’s List Award

Sep. 2019 – Feb. 2020