Ding-Hsun Lin

Department of Computer Science
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Education

National Tsing Hua University Hsinchu, Taiwan
MSc, Computer Science Sep. 2022 – Present

- Tsing Hua Emerging Technology Automation (THETA) Lab
  - Advisor: **Prof. Tsung-Yi Ho**
  - Research Focus: Electronic Design Automation (EDA), Artificial Intelligence (AI)
- Master Thesis: *Deep Reinforcement Learning based Routing Refinement*
- Overall GPA: *4.08 / 4.30*

National Tsing Hua University Hsinchu, Taiwan
BSc, Program of Physics & Program of Computer Science
Sep. 2017 – Jun. 2022

- Overall GPA: *3.33 / 4.30*
- Computer Science-related GPA: *3.56 / 4.30*

Skills & Services

</> C/C++ · Python · Verilog
Git · Pytorch · Ray RLlib

A字 Mandarin · native
English · vantage · TOEIC: 830

TA Introduction of Integrated Circuit Design (Fall' 22)

Hobbies

Photography · Playing Sudoku
Listening to Music · Reading
Watching Anime

Selected Coursework

VLSI Design for Manufacturability *Algorithm Implementation* GitHub Repo. Spring' 23

- This course covers manufacturing-aware physical design, including key research and algorithmic techniques.
- Implemented Algorithm: Dummy Fill Insertion (Modified ICCAD'18 CAD Contest Problem C).

Data Science *Algorithm Implementation & Model Training* GitHub Repo. Spring' 23

- This course provides a comprehensive introduction to data science, encompassing theory and practical skills. It covers data acquisition, cleaning, analysis algorithms, theories, and explores contemporary research in top conferences and journals.

Advanced Logic Synthesis *Algorithm Implementation* GitHub Repo. Spring' 23

- This course covers various aspects of logic optimization including logic minimization, timing optimization, technology mapping, low power design, automatic test pattern generation, and synthesis for finite state machines and hardware security.
- Implemented Algorithm: FSM State Assignment for Low Power Dissipation.

FPGA Architecture & CAD *Algorithm Implementation* GitHub Repo. Fall' 22

- This course first introduces the characteristics, evolution and usage of field-programmable technologies, and then continues to look into some advanced researches related to FPGA architecture and CAD.
- Implemented Algorithm: Multi-level Topology-Driven Partitioning for Multi-FPGA Systems.

VLSI Physical Design Automation *Algorithm Implementation* GitHub Repo. Fall' 22

- This is a course on algorithms for VLSI physical design automation. Topics include partitioning, floorplanning, placement, routing, and other related issues.
- Implemented Algorithm: Two-way Min-cut Partitioning, Fixed-outline Slicing Floorplan Design, Placement Legalization, and Automated P&R for Analog Circuits.