Yihang Zuo PhD student

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Education

Arizona State University — Tempe, US
PhD student in Electrical and Computer Engineering — 2025 - –
- Advisor: Prof. Deliang Fan

Hong Kong University of Science and Technology (Guangzhou) — Guangzhou, China
MPhil in Microelectronic — 2023 - 2025
- Advisor: Prof. Yuzhe Ma and Prof. Jiayi Huang

South China University of Technology — Guangzhou, China
B.E. in Microelectronics — 2019 - 2023

All Publications

Major Peer-reviewed Conference and Journal Papers

1. [**ISLPED '25**] Zexin FU, **Yihang Zuo**, Yuzhe Ma, and Jiayi Huang. Optimizing Heterogeneous Compute-in-Memory with Hybrid Dataflow and In-Network Reduction for Vision Transformer. *IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED), 2025* https://doi.org/10.1109/DAC56929.2023.10247734

2. [**DAC '23**] Zhuolun He, **Yihang Zuo**, Jiaxi Jiang, Haisheng Zheng, Yuzhe Ma, and Bei Yu. OpenDRC: An Efficient Open-Source Design Rule Checking Engine with Hierarchical GPU Acceleration. *ACM/IEEE Design Automation Conference (DAC), 2023* https://doi.org/10.1109/DAC56929.2023.10247734

3. [**AO**] **Y. Zuo**, B. Liu, and K. Shao. Symmetrical indoor visible light layout optimized by a modified grey wolf algorithm. *Applied Optics, 61(20):6016–6022, Jul 2022.* https://doi.org/10.1364/AO.458919

4. [**WHICEB**] J. Wan, X. Liu, **Y. Zuo**, and J. Luo. Analysis on public opinion sentiment evolution of covid-19 based on weibo data. *WHICEB 2021 Proceedings. 67.* https://aisel.aisnet.org/whiceb2021/67

Minor Lightly-Reviewed Posters, Extended Abstracts, and Workshop Papers

1. [**DATE'25**] Tianchu Dong, Shaoxuan Li, **Yihang Zuo**, Hongwu Jiang, Yuzhe Ma and Shanshi Huang. OpenC^2: An Open-Source End-to-End Hardware Compiler Development Framework for Digital Compute-in-Memory Macro *Proceedings of the 2025 Design, Automation and Test in Europe Conference*

Skills

Languages: Chinese, English

Programming: `Python`, `C++`, `MATLAB`, `CUDA`, `LATEX`.

Software: NeuroSim, OpenRoad, KLayout, ABC, OpenDRC, Qrouter, and other open EDA design flow software

Highlight Project

Physical Verification   02/2022 – 11/2023

- **Affiliation:** Shanghai Artificial Intelligence Lab
- **Collaborator:** Dr.Zhuolun HE, Prof. Yuzhe MA, and Prof. Bei YU
- **Participation (Done):** Design and implement the sequential algorithm for design rule checking (DRC). **DAC 23**

Hybrid CIM-based AI Accelerator for vision transformer   11/2023 – 08/2025

- **Affiliation:** Hong Kong University of Science and Technology (Guangzhou)
- **Collaborator:** Prof.Yuzhe MA, Prof.Jiayi HUANG, Prof.Hongwu Jiang, and Prof.Shanshi Huang

Indoor visible light communication system   11/2021 – 04/2022

- **Affiliation:** South China University of Technology
- **Participation:** Propose a modified grey wolf algorithm to optimize the VLC system layout, which will likely jump out of the local optimal solution. **AO 22**

Awards and Honors

- **Postgraduate Studentship, HKUST(GZ)** 120,000RMB/year   09/2023-current
- **JieLi Scholarship, SCUT** 5000RMB   09/2021
- **Academic Scholarship, SCUT** 3000RMB   09/2021& 09/2022
- **Meritorious winner**, Mathematical Contest in Modeling (MCM)   02/2021
- **1st Prize in Guangdong province**, China Undergraduate MCM   10/2020
- **1st Prize in South China**, China college IC competition   07/2022
- **2nd Prize in Guangdong province**, China Undergraduate MCM   10/2021
- **3th Prize in South China**, China college IC competition   07/2021
- **3th Prize**, China college IC competition   08/2022
- **Runner-up**, SCUT debate competition   11/2020

Experience and Service

Intern of Shanghai Artificial Intelligence Lab (Pujiang lab)   2022.09-2023.03

Summer Course of University of Illinois Urbana-Champaign (UIUC)   2021.08

Course of Hong Kong University of Science and Technology (HKUST)   2022.05

Mentor of SCUT Undergraduate Admission Promotion in Henan Province   2021.01

President of SCUT Microelectronics Association   2021.05 – 2022.09

Excellent Social Practice **Volunteer**, SCUT