YANG LUO

PhD Candidate ◇ Microelectronics Thrust

The Hong Kong University of Science and Technology (Guangzhou)

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RESEARCH INTERESTS

- Design for manufacturing / advanced lithography
- Artificial intelligence for chip design
- The application of large language models and generative models

EDUCATION

Microelectronics Thrust, Hong Kong University of Science and Technology (Guangzhou)
Sep. 2023 – Present
Microelectronics

School of Computer Science and Technology, University of Chinese Academy of Science, Beijing
Sep. 2019 – Dec. 2022
M.S.   Computer Applied Technology

School of Automation, Beijing University of Science and Technology, Beijing
Sep. 2015 – Jul. 2019
B.Eng.   Intelligent Science and Technology (RANK 5/71)

EXPERIENCE

Research Assistant   Jul. 2023 – Aug. 2023
Hong Kong University of Science and Technology (Guangzhou), MICS
Guangzhou, China
Topic: Synaptic Neural Network and Model Quantization

Research Intern   Aug. 2021 – Jun. 2022
SmartMore
Shenzhen, China
Topic: Optical Character Recognition and Model Distillation

Research Intern   Apr. 2021 – Jul. 2021
Samsung Advanced Institute of Technology & Peking University ZERO Lab
Beijing, China
Topic: Group Equivariant Network for Object Detection

AWARDS AND HONORS

National Third Prize (6/733)	Tianchi competition - HD Video Segmentation	2020
Excellent graduates of Beijing University of Science and Technology		2019
National Third Prize	"Huawei Cup" National Undergraduate Intelligent Design	2018
National Third Prize	Siemens Intelligent Manufacturing Competition	2018
People's Scholarship & Outstanding Student		2018
People's Scholarship & Outstanding Student		2017
People's Scholarship & Outstanding Student		2016

PUBLICATIONS

Journal Papers

[J2] Yutao Li, Kui Xu, Yuzhe Ma, Junze Li, **Yang Luo**, Xinru Li, Penghui Shen, Luyu Zhao, Hang Liu, Li Ren, Dehui Li, Lianmao Peng, Li Ding, Tianling Ren, Yeliang Wang, "A Novel Time-Division Multiplexing Architecture Revealed by Reconfigurable Synapse for Deep Neural Networks", Advanced Materials (**AM**), 2025.

[J1] Yongzhen Guo, **Yang Luo**, Weiping Wang, Xiong Luo, Chao Ge, Jürgen Kurths, Manman Yuan, Yang Gao, "Fixed-time Synchronization of Complex-valued Memristive BAM Neural Network and Applications in Image Encryption and Decryption", International Journal of Control, Automation and Systems (**IJCAS**), vol. 18, no. 02, pp. 462–476, 2020.

Conference Papers

[C4] Xiaoxiao Liang, **Yang Luo**, Bei Yu, Yuzhe Ma, "BEAM: Bidirectional MEEF-Driven Mask Optimization for Curvilinear Photonic Design", IEEE/ACM Asian and South Pacific Design Automation Conference (**ASPDAC**), 2026.

[C3] Minjie Bi, **Yang Luo**, Xiaoxiao Liang, Zhengzhou Gu, Jinbin Deng, Binwu Zhu, Yuzhe Ma, "Efficient SRAF Generation via Diffusion Models", International Symposium of Electronics Design Automation (**ISEDA**), 2025.

[C2] Yuchao Wu, Xiaofei Yu, Hao Chen, **Yang Luo**, Yeyu Tong, Yuzhe Ma, "PICBench: Benchmarking LLMs for Photonic Integrated Circuits Design", IEEE/ACM Design, Automation, and Test in Europe (**DATE**), 2025.

[C1] **Yang LUO**, Xiaoxiao LIANG, Yuzhe MA, "Enabling Robust Inverse Lithography with Rigorous Multi-Objective Optimization", IEEE/ACM International Conference on Computer-Aided Design (**ICCAD**), 2024.

TEACHING

Machine Learning (2024-25 Spring), Teaching Assistant   2025 Feb. – 2025 Jun.

SKILLS

Programming Languages: Python, C++, Shell

Frameworks: Pytorch, MMDetection, Dtectron2