

EDUCATION

- **The University of Hong Kong** Hong Kong S.A.R.
Doctor of Philosophy in Computer Sciences; HKU-MMLab; Supervisor: Prof. Ping Luo Sept. 2021 – July 2025
- **Tsinghua University** Beijing, China
Master of Engineering in Software Engineering; GPA: 3.84/4.00; Rank: 1/98 Sept. 2017 – Jun. 2020
- **Fudan University** Shanghai, China
Bachelor of Engineering in Microelectronics Science and Engineering; GPA: 3.87/4.00; Rank: 2/69 Sept. 2013 – Jun. 2017

RESEARCH EXPERIENCE

- **The University of Texas at Austin** Austin, Texas, United States
Research Scholar; UTDA Lab; Supervisor: Prof. David Z. Pan Feb. 2024 – July 2024

AWARD

- **Best Oral Presentation of Westlake Future Scholars Forum** 2023
- **Outstanding Graduates of Software School, Tsinghua University** 2020
- **Excellent undergraduate thesis of Fudan University (Top 1 of 69)** 2017
- **Shanghai Outstanding Graduates (5%)** 2017
- **1st Prize of National Olympiad in Informatics in Provinces (NOIP)** 2010, 2011

SCHOLARSHIP

- **Hong Kong PhD Fellowship** 2021
- **Shanghai Scholarship (3%)** 2016
- **National Scholarship (Top 1 of 69)** 2015
- **Freshman Scholarship of Fudan University (5%)** 2013

PUBLICATION

- **Yao Lai**, Sungyoung Lee, Guojin Chen, Souradip Poddar, Mengkang Hu, David Z. Pan, Ping Luo. “AnalogCoder: Analog Circuit Design via Training-Free Code Generation.” Annual AAAI Conference on Artificial Intelligence (AAAI) **Oral**, 2024.
- **Yao Lai**, Jinxin Liu, David Z. Pan, Ping Luo. “Scalable and Effective Arithmetic Tree Generation for Adder and Multiplier Designs.” Advances in Neural Information Processing Systems (NeurIPS) **Spotlight**, 2024. (CCF-A)
- **Yao Lai**, Jinxin Liu, Zhentao Tang, Wang Bin, Jianye Hao, Ping Luo. “Chipformer: Transferable chip placement via offline decision transformer.” International Conference on Machine Learning (ICML), 2023. (CCF-A)
- **Yao Lai**, Yao Mu, Ping Luo. “Maskplace: Fast chip placement via reinforced visual representation learning.” Advances in Neural Information Processing Systems (NeurIPS) **Spotlight**, 2022. (CCF-A)
- **Yao Lai**, Guolou Ping, Xiaojun Ye. Lai, Yao, et al. “Opensmax: Unknown domain generation algorithm detection.” European Conference on Artificial Intelligence (ECAI), 2020. (CCF-B)
- **Yao Lai**, Ming’e Jing. “On-chip network source routing algorithm based on A* algorithm optimization.” Journal of Fudan University, 2018. (in Chinese)
- Lan Zhang, **Yao Lai**, Xiaojun Ye. “Attention Mechanism Based Detection of Malware Call Sequences.” Computer Science, 2019. (in Chinese)
- Lizheng Deng, Hongyong Yuan, Lida Huang, Shuan Yan, **Yao Lai**. Post-earthquake Search via an Autonomous UAV: Hybrid Algorithm and 3D Path Planning[C]. ICNC-FSKD, 2018: 1329-1334.

PROGRAMMING SKILLS

- **Languages:** C/C++, Python, SQL, Java, Perl, MATLAB, Verilog HDL
- **Tools:** Pytorch, Tensorflow, Scikit-learn
- **Certification:** Certified Software Professional (CSP) Top 0.1%

LANGUAGE SKILLS

- **English:** Advanced CET-6: 585, TOEFL-iBT: 102
- **Japanese:** Intermediate JLPT-N2 (Japanese Language Proficiency Test): 137
- **Cantonese:** Intermediate

WORK EXPERIENCE

- **ByteDance** Beijing, China
Software Engineer *July 2020 – July 2021*
 - **Responsibility:** Support page parsing function and detect sex page in search engine by extracting both vision and text information.
- **Google** Beijing, China
Software Engineering Intern *June 2019 – Sept. 2019*
 - **Responsibility:** Migrated one query language of knowledge to a new language, and gave test cases to verify the correctness of the migration. Designed tool that can generate test cases automatically.
- **NVIDIA** Shanghai, China
VLSI Physical Design Intern *Jan. 2016 - May 2016*
 - **Responsibility:** Written VLSI flow automation scripts for VLSI Test Analysis, including placement, routing, timing etc. Written scripts for converting wiki format text to HTML format text for wiki platform.

TEACHING

- Teaching Assistant for *Computer programming II* *2022*
- Teaching Assistant for *Introduction to Database Management Systems* *2022*

LEADERSHIP

- Class Monitor (Excellent Class Group), Software School of Tsinghua University *2017-2020*
- Leader of voluntary organization for children, Fudan University *2014-2015*