Goujin Chen

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Research Interests

I am interested in Machine Learning, EDA, VLSI design. My current focuses include:

- Machine Learning in VLSI Design.
- Reinforcement learning, computer vision.

Education

The Chinese University of Hong Kong — Hong Kong
M.Sc. in Computer Science — *Sep 2019 – Nov 2020*
- Advisor: Prof. Bei Yu

Huazhong University of Science and Technology — Wuhan, China
Bachelor of Computer Science — *Sep 2015 – Jun 2019*

Relevent Working Experience

Smartmore Co.Ltd. — SHENZHEN, China
Research Intern — *Nov 2020 – Jan 2021*

Tencent Technology Co.Ltd. — SHENZHEN, China
Research Intern — *May 2018 – Nov 2018*

Awards

Scholarship
- Distinguished Academic Performance Scholarship, CUHK. *May 2020*
- National Encouragement Scholarship, HUST, Ministry of Education, PRC *Nov 2016*
- First Class Scholarship, HUST, the highest scholarship in HUST. *2018, 2019*

Internship
- First Prize, Tencent SNG Hack Week. *Jun 2019*
- Excellent Intern, Tencent. *Sep 2019*

Projects

DAMO : Towards High Accuracy DL-Based OPC With Deep Lithography Simulator. This paper present a novel method for Deep Learning based OPC which results surpass the famous OPC tool Mentor Calibre. The manuscript was accepted by ICCAD2020.

CUDA-OPC : This is a CUDA acceleration project that aims to improve the ILT computation efficiency, it speeds up the lithography process nearly 40 times than before.

Skills

Programming C/C++, Python, Ruby, Matlab, LaTeX, Bash, Javascript, Rust, Java
Machine Learning Skilled in Pytorch, Tensorflow, and CUDA programming.
Tools Vim, Git, macOS, Linux

Publications

1. **C. Guojin**, C. Wanli, M. Yuzhe, Y. Haoyu, and Y. Bei, "DAMO: Deep agile mask optimization for full chip scale," in *IEEE/ACM International Conference on Computer-Aided Design (**ICCAD '20**)*, Nov. 2020. [Online]. Available: https://arxiv.org/abs/2008.00806.
2. Y. Ziyang, **C. Guojin**, M. Yuzhe, and Y. Bei, "A gpu-enabled level set method for mask optimization," in *IEEE/ACM Proceedings Design, Automation and Test in Europe, (**DATE '21**)*, Nov. 2020.

Talks

1. CUDA based Convolution and FFT on OPC. *CUDA Group Presentation.*, CUHK. *Mar 2020*
2. DLS-DMO: High Accuracy DL-Based OPC With DLS. *CUDA Group Presentation.*, CUHK. *May 2020*