Guojin Chen

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RESEARCH

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

INTERESTS

- 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 May 2018 - Nov 2018

Research Intern

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 Sep 2019

• Excellent Intern, Tencent.

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

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

PUBLICATIONS

- [1] W. Li, G. Chen, H. Yang, R. Chen, and B. Yu, "Learning point clouds in eda. (Invited Paper)," in ACM International Symposium on Physical Design, (ISPD '21), Mar. 2021.
- [2] Z. Yu, G. Chen, Y. Ma, and B. Yu, "A gpu-enabled level set method for mask optimization," in *IEEE/ACM Proceedings Design, Automation and Test in Europe, (DATE '21)*, Nov. 2020.
- [3] **G. Chen**, W. Chen, Y. Ma, H. Yang, and B. Yu, "DAMO: Deep agile mask optimization for full chip scale," in *Proceedings of the 39th International Conference on Computer-Aided Design*, (*ICCAD '20*), Nov. 2020, pp. 1–9.