Education

The University of Hong Kong

2023 - Present

Ph.D., Electrical and Electronic Engineering

Advised by Prof. Chao Xiang

Hong Kong, China

Delft University of Technology

2021 - 2023

M.S., Applied Physics

Delft, The Netherlands

Advised by Prof. Kobus Kuipers

University of Electronic Science and Technology of China

2017 - 2021

B.S., Mathematics and Physics

Chengdu, China

Grade: Rank 1st in Yingcai Honors College

Relevant Skills

• Python & MATLAB

• RF Synthesizer Design

Optimization

• Laser Engineering

• COMSOL & Lumerical

Experience

Baidu, Inc 2023.4 - 2023.10

Research Intern in Quantum AI

Beijing, China

Mentored by Prof. Kun Fang & Prof. Xin Wang

• Developed a fast quantum circuit compilation algorithm that utilizes symmetries in hardware architecture.

- Demonstrated the circuit compilation algorithm's optimality in terms of its time complexity.
- Outcomes: 1 research paper & 3 patents

Publications

- D. Yu, K. Fang (2024). Symmetry-based quantum circuit mapping. Physical Review Applied.
- D. Yu, S. Arora, and L. Kuipers (2024). Impact of transforming interface geometry on edge states in valley photonic crystals. Physical Review Letters.

Patents

- K. Fang, D. Yu (2023). Quantum circuit mapping method and device and electronic equipment. CN117436537A.
- K. Fang, D. Yu (2023). Quantum circuit mapping method and device and electronic equipment. CN117436536A.
- K. Fang, D. Yu (2023). Quantum circuit mapping method and device and electronic equipment. CN117436535A.

Awards

Excellent Student Scholarship 2020

University of Electronic Science and Technology of China

Excellent Student Scholarship

2019

University of Electronic Science and Technology of China

Model Student Scholarship 2018

University of Electronic Science and Technology of China