Yue Yu

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EDUCATION

PEKING UNIVERSITY Sep. 2019 - Jul. 2023(expected)

Bachelor of Science in Physics

- **Academics:** Overall GPA: 3.76/4.00
- **Courses:** Nonlinear Optics (96), Quantum Information (95)
- **Honors and Awards:** Weiming Physics Scholarship (2019, 2020), Peking University Scholarship (2019), College Scholarship (2020), Gold Medal in the 35th China Physics Olympics final(2019)

PREPRINTS & PUBLICATION

- None

RESEARCH EXPERIENCE

Research on Quantum Transducer Jul. 2022 – Present

Advisor: Prof. Mohammad Mirhosseini, California Institute of Technology

- Optimizing the coupling strength between phonon and microwave photon.
- Explore the properties phonon crystal cavity.

Research on Photonics Quantum Computing & Quantum Hamiltonian Simulation Apr. 2021 – Present

Advisor: Prof. Jianwei Wang, Peking University

- Read papers about quantum computing based on photonics and some state-of-the-art quantum algorithms (quantum walk, quantum signal processing, VQE, etc.)
- Assisted the calibration of photonics quantum computing chip.
- Assisted the photonic chip design.
- (Submitted) Modified the multi-product algorithm for Hamiltonian simulation (proposed by Nathan Wiebe and Andrew M. Childs, arXiv:1202.5822), and adapt it for the simulation of non-Hermitian Hamiltonian on photonics quantum computing chip.

Research on Integrated Optics and Machine Learning Oct. 2020 – Apr. 2021

Advisor: Prof. Xiaoyong Hu, Peking University

- Read papers about Integrated Photonics and conducted literature review about machine learning for photonics devices design and optical neural networks.
- Assisted the design of silicon-based photonics devices using COMSOL.
- (Submitted) Design an optical cavity with certain Q automatically using inverse design with machine learning.

SKILLS

- **Programming:** Python, Mathematica, Matlab, LaTeX
- **Numerical Simulation:** Comsol

- **Machine Learning Algorithms:** Neural network, SVM, unsupervised learning, etc.
- **Chip design:** Design photonic chip with *ipkiss* (Python package) and Klayout