

Entong He

July 26, 2003

entong_he@connect.hku.hk • (+852) 6582 3909 / (+86) 188 2316 1675 • webpage: <https://heentong.github.io/>
The University of Hong Kong • Pokfulam, Hong Kong Island, Hong Kong SAR • China

RESEARCH INTERESTS

Quantum information and quantum complexity theory.

EDUCATION

The University of Hong Kong

POKFULAM, HONG KONG SAR, CHINA

Bachelor of Engineering in Computer Science

Sep. 2021 - present

- Cumulative GPA: 3.85/4.3 (3.81/4.0 in WES Evaluation).
- Selective coursework: advanced probability (measure-theoretic), cryptography, advanced algorithm design & analysis, intro. to optimization, principles of operating systems, robotics, multivariable calculus, etc.
- Final year project [thesis](#).

National University of Singapore

SINGAPORE

Exchange student at School of Computing

Spring 2024

- Coursework: quantum computing, stochastic operations research, game theory, Bayesian statistics.
- Semester GPA: 4.75/5.0.

EXPERIENCE

HKU Undergraduate Research Fellowship Programme 2024 – Advisor: Prof. [Yuxiang Yang](#)

Sep. 2024 - present

- Research focus: programming shallow quantum circuits.

Mitacs Globalink Research Internship 2024 – Advisor: Prof. [Anne Broadbent](#)

Summer 2024

- Research focus: quantum non-locality, algebra of non-local games and quantum complexity theory.
- The project was co-advised by Dr. [Connor Paddock](#).

HKU Summer Research Programme 2023 – Advisor: Prof. [Chenshu Wu](#)

Summer 2023

- Research focus: sensing with quantum metrology and sensor localization algorithms with quantum ranging.
- The project was co-advised by Prof. [Yuxiang Yang](#).

Research Assistant at CUHK SEEM – Advisor: Prof. [Daniel Zhuoyu, Long](#)

Summer 2022

- Research focus: resource allocation with proactive upgrade and flexible fulfillment scheme. Proved the submodularity of 3- and 4-product revenue functions on a variant of the Hamilton-Jacobi-Bellman equation.

AWARDS

Hong Kong PhD Fellowship (HKPF) 2025/26

2025

HKU Undergraduate Research Fellowship

2024

2024 Mitacs Globalink Research Internship Award

2024

C.V. Starr Scholarship

2024

HKU Presidential PhD Scholarship (HKU-PS) - conditional offer for Fall 2025 intake

2023

HKU Summer Research Programme 2023 Research Scholarship

2023

2021-2022 Dean's Honours List Award - HKU Faculty of Engineering

2023

36th & 37th Chinese Physics Olympiad - Provincial Second Prize

2019 & 2020

PUBLICATIONS AND PREPRINTS

- *Topics in Non-local Games: Synchronous Algebras, Algebraic Graph Identities, and Quantum NP-hardness Reductions* [arXiv]
Entong He 2024
- *QuERLoc: Towards Next-Generation Localization with Quantum-Enhanced Ranging* (Under review) [arXiv]
Entong He, Yuxiang Yang, Chenshu Wu 2024
- *Quantum Ranging Enhanced TDoA Localization* [ICASSP 2024]
Entong He, Yuxiang Yang, Chenshu Wu* 2024

SERVICE

- Reviewer for 25th Asian Quantum Information Science Conference (AQIS 2025)
- Reviewer for 2025 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2025)

SKILLS

- **Technical specialties:** (1) **Mathematical skills:** calculus, linear algebra, abstract algebra, measure-theoretic probability, discrete algorithms, optimization. (2) **Programming skills:** C, C++, Python, git, Mathematica.
- **Natural languages:** Mandarin (native) • English (TOEFL: 107, 25 in speaking; IELTS: 7.5) • Cantonese (fluent)