He Entong *July 26, 2003*

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The University of Hong Kong • Pokfulam, Hong Kong SAR • China

Experience

The University of Hong Kong   Pokfulam, Hong Kong SAR, China
Bachelor of engineering in computer science   *2021.9.1 - present*
Major GPA: 4.05/4.3 (WES 3.88/4) || Cumulative GPA: 3.85/4.3 (WES 3.81/4)

Mitacs Globalink Research Internship - Supervisor: Prof. Anne Broadbent   *2024/5/27 - 2024/8/20*
Research focus: computational examples for Boolean constraint system algebras and non-local games.
The project was co-supervised by Dr. Connor Paddock.

HKU Summer Research Programme 2023 - Supervisor: Prof. Chenshu Wu   *2023/5/29 - 2023/8/10*
Focused on sensing techniques with quantum metrology and the sensor localization model it introduces.
The project was co-supervised by Prof. Yuxiang Yang

Student Teaching Assistant - Supervisor: Prof. Takwing Chim / Dr. Failung Tsang   *2022-2023*
Helped with (1) problem-solving session for COMP2113/ENGG1340 - Programming technologies, (2)
conducting example classes for MATH1851/1853 - Introduction to calculus/linear algebra.

Research Assistant - Supervisor: Prof. Daniel Zhuoyu, Long @ CUHK   *2022/7/1 - 2022/9/1*
Assisted the mathematical proof of theorems and programming in robust optimization. Promoted the
proof of the submodularity property of revenue function defined by a variant of the HJB equation.

Shenzhen Senior High School   Shenzhen, Guangdong, China
2021 NJCEE participant. Subjects: Physics, Chemistry, Biology.   *2018/9/1 - 2021/6/7*

Awards

HKU Presidential PhD Scholarship (2025 intake) - Conditional Offer   *Hong Kong SAR, China*
C.V. Starr Scholarship   *Hong Kong SAR, China*
2021-2022, 2022-2023 Dean's Honour List Award-HKU Faculty of Engineering   *Hong Kong SAR, China*
36th & 37th Chinese Physics Olympiad - Second Prize   *Guangdong, China*
2020 THUSSAT TACA - Top 1% in main subjects   *Guangdong, China*

Publications

Topics in Non-local Games: Synchronous Algebras, Algebraic
Graph Identities, and Quantum NP-hardness Reductions   ***Entong He***
Preprint. Research conducted as a visiting research student at the uOttawa QUASAR group.
arXiv link: https://arxiv.org/pdf/2408.10114

QuERLoc: Towards Next-Generation Localization
with Quantum-Enhanced Ranging   ***Entong He**, Yuxiang Yang, Chenshu Wu*
Preprint, under review (INFOCOM 2025).
arXiv link: https://arxiv.org/pdf/2404.16895

Quantum Ranging Enhanced TDoA Localization   ***Entong He**, Yuxiang Yang, Chenshu Wu**
In proceedings of 2024 IEEE International Conference on Acoustics, Speech and Signal Processing.
doi: 10.1109/ICASSP48485.2024.10446684

Education

The University of Hong Kong   Pokfulam, Hong Kong SAR, China
Bachelor of engineering in computer science (in progress).   *2021 - present*
National University of Singapore   Singapore
Exchange student @ NUS School of Computing.   *2024 Jan-May*
Courses: quantum computing, stochastic operations research, game theory, Bayesian statistics.
Semester GPA: 4.75/5

Skills

Technical specialties: (1) **Mathematical Skills:** calculus, linear algebra, measure theory-based probability,
design and analysis of algorithms. (2) **Programming Skills:** C, C++, Python, Mathematica.

Natural languages: Mandarin (mother tongue); English (7.5 overall in IELTS); Cantonese (fluent).