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 (Computer Science) Curriculum
Major GPA: 4.05/4.3 (WES 3.88/4) || Cumulative GPA: 3.85/4.3 (WES 3.81/4)   *2021.9.1 - present*

Mitacs Globalink Research Internship - Supervisor: Prof. Anne Broadbent   *2024.5.27 - 2024.8.20*
Research focus: Computational Examples for Boolean Constraint System Algebras and Nonlocal Games. The project is co-supervised by Dr. Connor Paddock.

HKU Summer Research Programme 2023 - Supervisor: Prof. Chenshu Wu   *2023.5.29 - 2023.8.10*
Focus on sensing techniques with quantum metrology and the specific sensor localization model it introduces. The project is co-supervised by Prof. Yuxiang Yang

Student Teaching Assistant - Supervisor: Prof. Takwing Chim / Dr. Failung Tsang   *2022-2023*
Help with (1) problem-solving and score rebuttal 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*
Help with some mathematical proof for theorems and programming in robust optimization. Promoted the proof of the submodularity 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://doi.org/10.48550/arXiv.2408.10114

*QuERLoc: Towards Next-Generation Localization
with Quantum-Enhanced Ranging*   ***Entong He***, *Yuxiang Yang, Chenshu Wu*
Preprint, under review by INFOCOM 2025.
arXiv link: https://doi.org/10.48550/arXiv.2404.16895

Quantum Ranging Enhanced TDoA Localization   ***Entong He***, *Yuxiang Yang, Chenshu Wu**
In the 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 degree in Computer Science (in progress)   *2021 - present*
National University of Singapore   Singapore
Exchange Student @ NUS Computing (HKU Worldwide Exchange Scheme)
Course: quantum computing, stochastic operations research, game theory, Bayesian statistics.
Semester GPA: 4.75/5   *2024 Jan-May*

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).