

# CHOI, Long Ho Happy

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## EDUCATION

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**The Hong Kong University of Science and Technology (HKUST)** *Sept 2023 – Present*  
*Bachelor's Degree in Engineering, major in Computer Science (with an Extended Major in Artificial Intelligence)*

- GPA: 3.019/4.3
- Minor in Mathematics
- Minor in Big Data Technology

**Tin Ka Ping Secondary School** *Sept 2017 – June 2023*

- 2023 HKDSE:
  - 5\* in Mathematics (Compulsory Part), 5\* in Mathematics (Extended Part Module 2), 5 in Physics, 5 in Chemistry, 5 in Liberal Studies

## PROJECT EXPERIENCE

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**Heat Index Estimation (2025 Spring UROP project)** *Jan 2026 - Present*  
*Supervised by Prof. FUNG, Jimmy Chi Hung, and*  
*co-supervised by Dr. CHAN, Jimmy Wai Man*

- Develop an 24-hour building shadow system across the whole HKUST campus and expand the domain across the whole HK region
- Investigation of efficient map dividing strategies for the building shadow computation when handling very dense urban areas

**Heat Index Estimation (2025 Fall UROP project)** *Sep 2025 - Dec 2025*  
*Supervised by Prof. FUNG, Jimmy Chi Hung, and*  
*co-supervised by Dr. CHAN, Jimmy Wai Man*

- Develop an urban building shadow analysis framework with seamless map merging operations for dense urban environments
- Investigation of the determination and visualization of the sunlight pattern in minute-level intervals with a high temporal-resolution analysis
- Investigation of map merging strategies without boundary artifacts
- Perform various GIS works, like handling building shadows of different building morphologies, solar irradiance, and the extraction of the HK map

**Heat Index Estimation (2025 Summer UROP project)** *June 2025 - Aug 2025*  
*Supervised by Prof. FUNG, Jimmy Chi Hung, and*  
*co-supervised by Dr. CHAN, Jimmy Wai Man*

- Predicting localized temperature exposure across different times and locations using a Sky-View Factor approach
- Perform various GIS works: multi-source geospatial data (e.g. 3D building morphology, building shadows) and microclimate parameters (e.g. solar radiation, temperature) by using QGIS, CSDI portal, Open3Dhk, Overpass Turbo, etc

## INTERNSHIP EXPERIENCE

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**AI Programmer** *Hong Kong, China*  
*Centre for Intelligent Multidimensional Data Analytics Limited* *June 2025 – Aug 2025*

- Collaborate with senior engineers to work on some new web development projects (i.e. CV system for engineers)

- Working on backend development using PostgreSQL and writing several APIs for the React Native frontend using JavaScript, Node.js, etc

## COURSE HIGHLIGHT

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- Artificial Intelligence (Python)
- Object-Oriented Programming (C++)
- Machine Learning
- Data Mining and Knowledge Discovery
- Reinforcement Learning
- Natural Language Processing (NLP)
- Software Engineering (Java)
- Web Development (PostgreSQL, JavaScript, Node.js, React Native)
- Design and Analysis of Algorithms
- Data Structure
- Fundamentals of Statistics (R)
- Nonparametric Statistics
- Probability
- Operating Systems (Linux)
- Honor Discrete Mathematics
- Computer Organizations
- Design Thinking

## SOFT SKILLS

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### Time Management

- Always be punctual, attend the meeting on time and even before 10 minutes
- Not a deadline fighter, always finish the task several days before the deadline

### Organizational

- Proficient in organizing workloads, and prioritizing tasks by making good use of daily planning tools, optimizing productivity across different tasks and responsibility
- Utilizes effective organizational methods to enhance overall performance and efficiency on different tasks or projects

### Proactive Self-learn

- Proactively finished several courses on Coursera and Kaggle during my spare time
- Actively learn various programming languages required (e.g. SQL, JavaScript, Node.js, ...) for the internship on the Internet before the internship period, and also during the night after daily work

### Open to Criticism

- Embrace feedback as an opportunity to make improvement and take these feedback seriously
- Actively listen to constructive criticism and integrate it to enhance performance
- Follow instructions from supervisors and actively demonstrate a willingness to learn from critiques

## AWARDS AND RECOGNITIONS

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### Dean of Engineering Scholarship for the Year 2023 (received from HKUST)

*Nov 2023*

- In recognition of the excellent academic achievement in the Hong Kong Diploma of Secondary Education Examination

### Outstanding TKPSS Graduate Award (received from Tin Ka Ping Foundation)

*Nov 2023*

- In recognition and appreciation of the remarkable academic achievement in HKDSE

## ENRICHMENT ACTIVITIES AND LEADERSHIP ROLES

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### **Cathay Hackathon 2025 Participants**

*Sep 2025 - Oct 2025*

- Applied design thinking and collaborative brainstorming techniques to improve the services for the airline passenger
- Researched and proposed some AI-driven solutions (e.g. using RAG for the AI chat-bot, that provides useful and accurate information to the users about their transit plan)
- Learned how to transform user experience challenges into technical solution proposals under time-constrained conditions

### **Tin Ka Ping Secondary School F.5 Mathematics (Extended Part Module 2) Enhancement Class Tutor**

*Feb 2025 - May 2025*

- Prepare course outlines, handouts, and review and provide feedback on the coursework for 23 participating students who are taking M2 as one of their elective subjects in HKDSE
- Deliver a total of 7 tutorials for the high school students based on the course materials prepared

### **Tutor of the Revision Class for Special Education Needs (SEN) students**

*Apr 2024 - May 2024*

- Giving academic support and guidance to the SEN students

### **Tin Ka Ping Secondary School F.6 Chemistry Enhancement Class Tutor**

*Oct 2023 - Feb 2024*

- Prepare course outlines, handouts, and review and provide feedback on the coursework for 1-2 participating students who are taking Chemistry as one of their elective subjects in HKDSE
- Deliver a total of 10 tutorials for the high school students based on the course materials prepared