

CHOI, Long Ho Happy

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EDUCATION

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

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

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

- 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

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

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

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