

CHEUNG Hiu Ching, Athena

Master of Philosophy

Aeronautical and Aviation Engineering

The Hong Kong Polytechnic University

🏠 <https://athenachc.github.io/>

✉ athena-hiu-ching.cheung@connect.polyu.hk

🌐 <https://github.com/HKPolyU-UAV>

🌐 www.linkedin.com/in/athena-cheung-chc

EDUCATION

• The Hong Kong Polytechnic University (HKPolyU)

2022-now

Master of Philosophy (Passed Confirmation of Registration)

CGPA: 3.48/4.30

- Thesis title: Design and Control of a Soft Aerial Vehicle for Conducting Aerial Grasping

- Supervised by Prof. Chih-yung WEN (AAE) and co-supervised by Dr Henry K. CHU (ME)

- affiliated with the MAV/UAV Lab (AIRo Lab)

• The Hong Kong Polytechnic University

2018-2022

Bachelor of Engineering (Honours) in Mechanical Engineering

GPA: 3.50/4.30

- Dean list (2019/2020)

- Computer Programming (C++): A+; Engineering Management: A; Engineering Design: A

PUBLICATION

• **H. C. Cheung**, C.-W. Chang, B. Jiang, C.-Y. Wen, and H. K. Chu, "A modular pneumatic soft gripper design for aerial grasping and landing," 2022. <http://arxiv.org/abs/2311.00390> (preprint, submitted to **IEEE RoboSoft 2024**)

• C.-W. Chang, L.-Y. Lo, **H. C. Cheung**, Y. Feng, A.-S. Yang, C.-Y. Wen, and W. Zhou, "Proactive guidance for accurate uav landing on a dynamic platform: A visual- inertial approach," **Sensors**, vol. 22, no. 1, p. 404, 2022.

AWARDS AND SCHOLARSHIP

• HKSAR Government Scholarship Fund - Endeavour Merit Award

2018/19 - 2022/23

• The Hong Kong Jockey Club Scholarships – Undergraduate Scholarship

- The Hong Kong Jockey Club

2019/20 - 2021/22

• BEA Inspiring Student Scholarship

-Bank of East Asia

2019/20

• Best Engineering Design Award The Robocon 2019 Hong Kong Contest

- Hong Kong Science and Technology Parks Corporation

2019

• HKSAR Government Scholarship Fund - Talent Development Scholarship

2018/19 -2019/20

• Two Champion; Four 1st Runner-up; Three 2nd Runner-up International Robotic Olympic 2017

- Hong Kong Robotic Olympic Association

2017

• (Senior Group) Second Prize; Best Design Award Fun Science Competition 2017 "Stay right there"

- Hong Kong Science Museum

2017

• Hong Kong Top 10 Outstanding Teens Award Hong Kong Outstanding Teens Election

- Hong Kong Playground Association

2016

WORK EXPERIENCE

• The Hong Kong Polytechnic University

May 2023 - now

Project Technical Assistant (Part-time) | Supervisor: Prof. Chih-yung WEN

MAV/UAV Laboratory

– Has associated with the research project "Research Centre for Unmanned Autonomous Systems" (P0046487)

– Providing technical support for 3D printing

– Providing technical support for mechatronics design

• Hong Kong Center for Construction Robotics

Jan 2023 - Jun 2023

Research Assistant (Part-time)

– Provided technical support for 3D printing

– Designed the mechanical structure of products and drawing the 3D CAD drawings

• The Hong Kong Polytechnic University

Sep 2022 - May 2023

Project Assistant (Part-time) | Supervisor: Prof. Chih-yung WEN

MAV/UAV Laboratory

– Had associated with the research project "Research Centre for Unmanned Autonomous Systems" (P0046487)

– Provided technical support for composite manufacturing (Carbon fiber airframes)

– Provided technical support for 3D printing

- **Hong Kong Center for Construction Robotics**

Jun 2022 - Aug 2022

Student Helper (Full-time)

- Joined one of the existing start-up teams, which is focusing on construction robots
- Designed the mechanical structure of products and drawing the 3D CAD drawings

- **The Hong Kong Polytechnic University**

Aug 2021 - May 2022

Student Assistant (Part-time) / Supervisor: Prof. Chih-yung WEN

MAV/UAV Laboratory

- Had associated with the research project "Trial: Development of Vertical Take-Off and Landing (VTOL) Unmanned Aerial Vehicle (UAV) for Air Quality Monitoring in Greater Bay Area" (K-ZPJU)
- Provided technical support for 3D printing
- Designed the mechanical structure of a movable landing platform for UAVs and controlled its movement with Arduino programming

- **The Hong Kong Polytechnic University**

Dec 2020 - Jul 2021

Student Assistant (Part-time and Full-time) / Supervisor: Dr Henry Kar Hang CHU

Biomimetic Robotics Laboratory

- Developed innovative solutions to automate robot arms, mobile robots, and other mechatronic systems for various tasks (3D object pick-and-place, robot navigation in an unknown environment, path planning, etc)
- Incorporated computer vision and artificial intelligence (AI) to enhance the performance and functionality of different systems

TECHNICAL SKILLS AND INTERESTS

Languages: English, Cantonese, Mandarin

CAD & CFD: AutoCAD, CorelDRAW, Fusion 360, SOLIDWORKS, Ansys Fluent

Programming language libraries & Frameworks: Arduino, C++, Python, ROS, OpenCV, ArduPilot, PX4, TensorFlow