Chan Cheuk Ka (陳綽家)

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🌐 https://cck.wtf

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EDUCATION

2021 Sep - 2025 Jul	**Bachelor's Degree (HK) –** **Biomedical Engineering** *The Chinese University of Hong Kong (CUHK)* ★★ <u>First Class Honour (cGPA: 3.579/4.0)</u>	• <u>Dean's list</u>, Faculty of Engineering (2021–2022 & 2022–2023) • Outstanding Achievement Award Scholarship, BME (2021–2022) • *Specialisation Stream: <u>Molecular, Cell, and Tissue Engineering</u>*
2024 Jan - 2024 Jul	**Academic Exchange (UK) –** **Affiliate: <u>Biochemical Engineering</u>** *University College London (UCL)* ★★ <u>Average: 74.3% (A)</u>	• Inorganic Chemistry for Engineers – (<u>Quantum orbitals</u>) • Biochemistry and Molecular Biology – (<u>Genetic engineering</u>) • Biochemical Engineering Processing and Design – (<u>Fluid dynamics</u>)
2015 Sep - 2021 Jul	**HKDSE** *St Joseph's College (SJC)*	• <u>5*</u>: Maths, Physics, Biology • <u>5</u>: Chemistry, M2 (Calculus & Algebra), English, Liberal Studies

STEM TEACHING EXPERIENCES

Please feel free to view my teaching materials here: https://cck.wtf/portfolio/stem

Year	Event	My Role	Size
2025 - Present	**Freelance – STEM classes teaching** *Multiple companies × Primary & Secondary schools*	• Teaching STEM classes as a freelancer	
2025	**AI racing workshop** *AI Summer Camp – CUHK × ITSC*	• <u>Wrote a neural network AI racing app</u> (https://cck.wtf/racing–ai) • Created teaching materials	*40 participants*
2025	**Catapult workshop** *InnoCarnival – CUHK × HKSTP*	• Created teaching materials • Mentored tutors	*400+ participants* *50+ sessions*
2025	**Hydraulic crane workshop** *InnoCarnival – CUHK × HKFYG*	• Created teaching materials	*30+ participants* *2 classes*
2025	**DIY vacuum cleaner workshop** *HK SciFest – CUHK × HK Science Museum*	• <u>Designed the DIY STEM kit</u> • Created teaching materials • Built <u>physical theory demonstrations</u>	*100+ participants* *4 classes*
2025	**Micro:bit hovercraft workshop** *STEM tutor programme – CUHK × Primary schools*	• Mentored secondary student tutors	*50+ students* *4 classes*
2023 - 2025	**VEX IQ robotic tournament** *HK Tech Challenge Game – CUHK × Asian Robotic League*	• Acted as <u>panel judge</u> & <u>referee</u>	
2023 - 2025	**VEX IQ robotic workshop** *CUHK × MakerSpark*	• STEM experience classes (in–school) • Competition preparation classes	*25+ classes*
2023	**VEX IQ robotic football game** *InnoCarnival – CUHK × HKSTP*	• <u>Designed & built</u> a robot football game	

PROGRAMMING SKILLS
https://cck.wtf/portfolio/coding

- Web development
- Android app development
- Git/GitHub/GitLab CI/CD
- TS/JS
  - Built a **web framework**
  - Published an **NPM package**
  - Published an **Android app**
  - NodeJS / Bun
  - React / React Native
  - Next.js
- HTML/CSS
- C#
- C/C++
- Python
- Game development
  - Unity (C#)

DESIGN SKILLS
https://cck.wtf/portfolio/design

- Adobe Suite
  - Premiere Pro
  - After Effects
  - Illustrator
  - Photoshop
- Video production
  - Editing
  - Shooting
  - Directing
  - Script writing
  - Animating
- 3D modelling
  - FreeCAD
  - 3D builder
  - Blender
- Graphics Design
  - Adobe Suite
  - Canva
  - Figma

LANGUAGE

- Chinese – Native
- English – CEFR: C1/Advanced
- German – Self–learning
- Dutch – Self–learning
- French – Self–learning

PROGRAMMING & ENGINEERING PROJECTS

2025 Jul
Neural Network AI Racing Workshop Web App 🇹🇸 🇭 css
Links – [Racing AI web app](#)
- Wrote an AI racing web app with **customisable neural network & natural selection**

2023 Feb - 2024 Oct
BioTech (iGEM) Competition Team Wiki Website 🇹🇸 🇭 css ○ 🦊
- Built a **custom web framework** & **team website** to introduce our project
- **Wrote an API** for the competition upload tool by **reverse engineering** the web app
- Employed **GitHub & GitLab CI/CD**

2025 Feb - 2025 May
CUHK Bus Clock Android App ⚛ 🇹🇸
- Built a CUHK school bus **route planning and schedule tracking android app**

2023 Sep - 2023 Dec
Quadriplegic Computer Input System Course Project 🇬 ⌦
Medical Instrumentation Design Course
- Designed & built a computer input system for quadriplegic patients using gyroscope mounted on a pair of goggles
- **Wrote numerous libraries** to integrate with physical sensors & circuits on an **Arduino**
- Averaged **13 words per minute**, **ranked 1st** in class

2023 Sep - 2023 Dec
Brain-Computer Interface Course Project ◢
Neuroengineering Course
- Wrote a **machine learning algorithm** to interpret user intent by analysing ECG (brain wave) signals
- Averaged **40% accuracy** given 4 bins, **ranked 2nd** in class

2023 Sep - 2023 Dec
Pneumonia Diagnosis AI & Health Tracking AI Course Project 🐍
Big Data in Healthcare Course
- Trained an **AI neural network** to classify pneumonia from lung x-rays, **95% accuracy**
- Trained a **multi-class AI model** to classify health tracker data, **99% accuracy**

2024 Sep - 2024 Dec
Thyroid Disease Diagnosis AI Course Project 🐍
Data Analytics for Personalised Genomics and Precision Medicine Course
- Trained a **multi-class AI classifier** to diagnose disease from blood tests, **97% accuracy**

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

2022 Feb - 2023 Jan	**Biomedical Engineering Society, CUHK** *Secretary* & *Chung Chi College Representative*	- Managed all internal documents of the society - Handled all external communications - Organised numerous academic-focused & student-focused events - Designed **~50% of society materials**, including souvenirs, social media promotion posts, and business cards - **Hosted** freshmen orientation day and camp, & acted as group "parent"

AWARDS

2023 - 2024	**International Genetically Engineered Machine (iGEM) Competition** *(Gold Medal)* Hosted by the *iGEM Foundation*
2021 - 2022 & 2022 - 2023	**Dean's List Certificate** Awarded by *CUHK: Faculty of Engineering (CUHK FoE)*
2021 - 2022	**Biomedical Engineering Outstanding Achievement Award & Scholarship** Awarded by *CUHK: Department of Biomedical Engineering (CUHK BME)*
2024 - 2025	**Swire Group Staff Hong Kong Scholarship** Hosted by *John Swire & Sons (H.K.) Limited*
2019 - 2020	**Hong Kong Biology Literacy Award** *(Merit)* Hosted by the *Hong Kong Association for Science and Mathematics Education*
2019	**International Biology Olympiad (IBO) - Hong Kong Contest** *(Bronze Award)* Hosted by the *International Biology Olympiad e.V. (IBO)*
2019	**Computer App Programming Competition** *(Bronze Prize)* Hosted by the *Hong Kong Polytechnic University (PolyU)*