

## EDUCATION

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- **The University of Hong Kong**  
*Bachelor of Science in Actuarial Science; Computer Science major; GPA: 3.77*  
**Hong Kong, China**  
*Aug. 2016 – Aug. 2020*
- **Swiss Federal Institute of Technology Zurich (ETH zurich)**  
*Exchange in Computer Science*  
**Zurich, Switzerland**  
*Sep. 2019 – Jan. 2020*
- **Northwestern University**  
*Exchange in Computer Science*  
**Chicago, US**  
*Jan. 2020 – June. 2020*
- **Peking University**  
*Globex Summer Engineer Program; on Robotics & Economy Engineering*  
**Beijing, China**  
*July. 2019 – Aug. 2019*
- **ENSAI**  
*Short-term Exchange on Statistics*  
**Rennes, France**  
*July. 2019 – July. 2019*

## EXPERIENCE

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- **Seasonalife**  
*Technology Analyst*  
**Hong Kong, China**  
*Jun. 2018 – Aug. 2018*
  - **REST API:**  
REST api development in Django as backend.
  - **React JS:**  
React front end development on various aspect. Includes Web application development for product in AIA which aggregates insurance information from the web and provides reasonable comparison.
  - **OCR:**  
OCR development for internal usage on identity identification.
  - **Company Website:**  
<https://www.seasonalife.com/>
- **University Summer Program**  
*Business Consulting Service*  
**Bohol, The Philippines**  
*Aug. 2018*
  - **Consulting:**  
Provides consulting service for local business in Jagna, Bohol. The business is mainly a local resort company.
- **Coherent Capital**  
*Technology Analyst*  
**Hong Kong, China**  
*Jan. 2019 – Mar. 2019*
  - **Insurance Technology:**  
Coherent capital is a consulting firm in insurance technologies. I work on various projects during internship, includes pre warning system for incidents, automatically filing insurance application form, reverse engineering on some program.
  - **Company Website:**  
<https://www.coherent.com.hk/>
- **Education Without Barriers (NGO)**  
*Software Engineer*  
**Hong Kong, China**  
*Feb. 2019 – Jun. 2019*
  - **EWB:**  
a NGO established to enhance child education in less developed area in China.
  - **Web development:**  
Constructed the official website for EWB.
  - **Company Website:**  
<https://educationwithoutbarriers.org/>
- **The University of Hong Kong: Engineering Faculty**  
*Research Assistant*  
**Hong Kong, China**  
*Jan. 2019 – June. 2019*

- **Project:**  
A project to monitor and analyse primary school kids behavior under different situation, under coordination of Engineer Faculty and Education Faculty at HKU.
- **Android App:**  
An android app for taking survey from user.
- **Fibit App:**  
A fitbit app to monitor user movement and status;coordinate with android app to transfer and store data.
- **Bioinformatics:**  
First experience in bioinformatics on variant calling tool.
- **The University of Hong Kong: Distributed System Lab** **Hong Kong, China**  
*Research Assistant* *July.2019 – Sep.2019*
  - **Data privacy in big data:**  
Differential privacy in big data workloads. Paper on submission: UPA: An Automated, Accurate and Efficient Differentially Private Big-data Mining System.
  - **SGX:**  
Intel Software Guard Extensions (SGX) is a set of security-related instruction codes that are built into Intel CPUs. I work on application using SGX to enforce security and privacy
  - **PDE:**  
Boost deep learning workloads using intrinsic property of Partial differential equation. Under investigation phase.
  - **Federated Learning:**  
Privacy issue arises from federated learning. Federated learning is a machine learning technique to collaborate training on decentralised edge devices.

## AWARD

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- **University Award** **Hong Kong, China**  
*Undergraduate Student* *2016-2018*
  - **Dean's Honor List:**  
Students who are within the top 10% of their class are considered for inclusion within the Dean's Honours List every year.
  - **Statistics and Actuarial Science Scholarship :**  
Scholarships of HK\$4,000 each awarded to four students which are in the same academic year.
- **1<sup>st</sup> Runner Up in Grand Global Challenge Submit 2019** **London, UK**  
*Hong Kong joint team from 4 universities* *Sep.2019*
  - **Grand Global Challenge Submit 2019:**  
Held in London, Co-organised by Chinese Academy of Engineering, Royal Academy of Engineering, National Academy of Engineering. Aims to convene inspirational world leaders with the next generation of engineers and changemakers to build creative collaborations to help solve the grand challenges facing our future world. The overall theme is Engineering in an unpredictable world
  - **Final Pitch:**  
After intra-country competition, 5 teams each from US, UK and China had a final pitch during the submit and our team got 1<sup>st</sup> runner up with 7500 pound award.
  - **Project:**  
"ClearBot": swarms of self-navigating (AI-visioned), self charging and decentralized robots clearing floating trash on sea.
  - **News Report Links:**  
University news: <https://www.hku.hk/press/press-releases/detail/19917.html>;  
South China Morning Post:"Robot marine plastic pollution collector Hong Kong students invented offers a cheap solution to clear rubbish-choked coasts".<https://www.scmp.com/lifestyle/article/3039950/robot-marine-plastic-pollution-collector-hong-kong-students-invented>

## INTERESTING COURSE PROJECTS ON COMPUTER SCIENCE

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- **Game Design In Unity:** I developed a 3D third person shooting game in Unity with functioning enemy AI, good weapon system and good combat effect. The game is based on Unity and got almost full score in the course. Due to optimization problem, we developed another light weight version.  
A link for our tailor: <https://www.youtube.com/watch?v=TRKMEBuXCXU>.
- **Compiler Design:** I implemented a compiler for self-designed simple language (Class not supported). A tailored cpu simulator to execute the assembly is associated with the compiled code. The project got a full score.
- **Architecture Project:** I built a memory system simulator with cpu pipeline, instruction cache, l1, l2 data cache and Dram. The simulation is based on cycle. I implemented various state of the art memory controller design on state of the art memory system simulator (Ramulator). I also built a prefetcher.
- **Java Project:** I built a p2p network following standard p2p framework to download a picture.
- **System Security Project:** I exercised on complicated buffer overflow, function call chaining and reverse engineering.
- **Web Security Project:** We built a secure certificate authority(CA) system for virtual company, which includes all CA functionality, backup system, logging system, secure database and several servers. We followed the principle in Open Web Application Security Project (OWASP). The system is secure for many well-known attacks (SQL injection, XSS, CSRF, etc.)
- **A Directional Antenna:** We built a good directional antenna using can bought at shops and it performances very good.

## RELATED COURSES AND SKILLS

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- **Actuarial Science and Statistics:** Risk Analysis; Statistics; Financial Mathematics; Random Process; Contingencies; Partial Differential Equation; Financial Economics; Energy Economics; Finance; Accounting; Data Mining; Derivatives;
- **Computer Science:** Algorithm design; Game design; Machine learning; Compiling technique; Computer Network; Bioinformatics; Distributed system; Robotics; System Security; Wireless Communication Security; Network Security;
- **Language:** Chinese; English; Cantonese
- **Programming Language:** C; C++; C; java; jsx; js; html; php; python; scala; SAS; R; Shell; Assembly