

# **KAH-ONN LOW**

Software Engineer

**HKTaxi** App Limited

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# **EDUCATION** •

SEPT 2015 - MAY 2019

The Hong Kong Polytechnic University, Bachelor of Engineering (Honours) Mechanical Engineering with First Class Honour (GPA: 4.0)

# WORK EXPERIENCE •

### APR 2019 - PRESENT HKTaxi App Limited (Software Engineer)

- Developing cross-platform mobile application with Flutter framework
- Implemented a GPS-integrated IoT device to record vehicles data along with their locations
- Developed a taxi management website to view taxis' current locations and previous trip data

# JUN 2018 - AUG 2018 Shell Hong Kong Limited (Engineering Assistant Intern)

- Proposed a stock inventory minization plan to save HKD\$ 100,000 operation costs
- Proposed a process to save 80% of installation time of the safety critical equipment of oil tanks
- Performed fish bone analysis to improve asset performance and prolong equipment life based on 1500+ entries of work order data on SAP

# PROJECTS -

# SEPT 2019 - PRESENT Exam Paper Marker

- Developing a mobile application that marks multiple-choice exam paper by reading images
- Developing Django backend server for image processing using OpenCV library
- Implementing web frontend to visualize exam results and statistics

# AUG 2019 Flutter Plugin

- Written a library to convert Hong Kong Grid 1980 coordinate to WGS 84 latitude and longitude
- Github: https://github.com/lowkahonn/flutter hkgrid80 wgs84 converter

# JUL 2019 Flutter Snake Game

- Coded snake game in Flutter framework
- Android APK: https://drive.google.com/open?id=19Gt-AKoxlXXBhseVRelVR4ablAopPYgZ
- Github: https://github.com/lowkahonn/Flutter-Snake-Game

# SEPT 2018 - MAY 2019 Swarm Unmanned Aerial Vehicle (UAV) System (Final Year Project)

- Assembled 3 quadrotor UAVs with PX4 Autopilots and upboard computers for offboard controls
- Scripted a centralized system with Python and ROS to coordinate UAVs
- Integrated shape-forming, swarming and collision avoidance abilities into the system
- Implemented Uniform Cost Search to allocate position coordinates to UAVs
- Demonstrated the system in indoor with Vicon-tracking system
- Pioneered the research and provided foundation of research to the department

# JAN 2019 - MAY 2019 Quadruped Robot (Academic Project)

- Designed the mechanical structure and the walking mechanism of the robot
- Collaborated with cross-disciplinary individuals during the whole design process
- Controlled the robot via Bluetooth
- Manufactured the robot by 3D Printing Technology and Sheet Metal
- Video: https://youtu.be/XzctvO8tCok

### MAR 2019 Python Machine Learning Web App

- Built a Linear Regression model to predict real value feature based on categorical feature
- Github: https://github.com/lowkahonn/Simple-Machine-Learning-Web-App

### DEC 2018 Python Multiplayer Snake Game

- Implemented a two-player snake game with Pygame and generated executables for Windows
- Github: https://github.com/lowkahonn/Multiplayer-Snake-Game

### NOV 2016 - DEC 2016 C++ Email Handler (Academic Project)

- Developed a C++ console application integrated with login system
- Implemented email storing, deleting, sorting and sending features
- Github: https://github.com/lowkahonn/C-Academic-Project-Email-Handler-

### SKILLS •

## PROGRAMMING LANGUAGES

Front End Development: HTML, CSS, JavaScript (jQuery and AJAX) Back End Development: Python (Django and Flask), Node.js

Database Management: MySQL, Redis Software Development: Flutter, Java OS environments: Windows, Linux, macOS

Experience & Tools: Git, Bash, IoT

Robotics: ROS

### PRODUCT DESIGN

Software: AutoCAD, SolidWorks Manufacturing: 3D Print, Sheet Metal

LANGUAGES English, Chinese (Mandarin, Cantonese), Malay

### AWARDS & HONOURS |

# POLYTECHNIC UNIVERSITY

- THE HONG KONG Outstanding Student Award of Department 2018
  - **Valedictorian of Department 2019**
  - Dean's Honours List 2015/16 & 2016/17
  - HKSAR Government Targeted Scholarship 2016 (HKD\$ 640,000)
  - HKSAR Government Reaching Out Award 2017-18 (HKD\$ 10,000)
  - Globex Julmester Scholarship 2016 (HKD\$ 12,000)
  - Wong Tit-Shing Student Exchange Scholarship (HKD\$ 30,000)
  - PolyU Outbound Exchange Funding (HKD\$ 19,000)
  - The Hong Kong & Kowloon Engineering Employers Association Limited Scholarship 2018/19 (HKD\$ 7,500)
  - Champion of Talent Quest 2016 & 2017

- TSUN JIN HIGH SCHOOL Ranked Top 1 nationally in Advanced Mathematics II, MICSS Unified Examination Certificate
  - Ranked Top 10 nationally in Physics, MICSS Unified Examination Certificate

# LEADERSHIP -

# THE HONG KONG POLYTECHNIC UNIVERSITY

### Student Mentorship

Gave voluntary speech to 50 students to share my learning experiences and tips on job hunting

### **External Vice President of Malaysian Student Association 2016**

- Integrated 50 participants of 5 different nationalities in a self-organized badminton competition
- Led 40 members to organize Malaysian Night to promote Malaysian culture to 200 participants
- Increased membership by 25% in the coming year
- Obtained departmental funding of HKD\$ 12,000 for organizing events