Yutong LIU

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EDUCATION

The Hong Kong Polytechnic University (HKPU), Hong Kong

09/2019-07/2023(Expected)

Electronic and Information Engineering - BSc (Hons)

WGPA: 3.88/4.3

Minor in Applied Mathematics

CGPA: 3.83/4.3

RESEARCH

Analysis of Privacy Policies of Applications Based on Deep Learning

07/2021-06/2022 (Expected)

Researcher and Developer, Department of Computing

- Labelled the privacy policies to get familiar with data sets for Named Entity Recognition (NER).
- Learned and applied some knowledge of deep learning, HanLP and NER.
- Conducted data pre-processing to adjust data types which were appropriate for further research.
- Gained a scholarship of HKD 7,000 and a grant of HKD 30,000 for the group.

Detection Technology of Privacy Risk Compliance of Applications Using NLP and Program Analysis 05/2021-08/2021 *Student Helper*, Department of Computing

- Labelled over 2,000 privacy policies for further use.
- My labels of high quality helped to ensure satisfactory results of the research.

Model Extraction Attack against On-device Speech Recognizer

01/2021-03/2021

Student Helper and Researcher, Department of Electronic and Information Engineering

- Obtained text data of speech recognition from public data sets using Google Voice Assistant in Android Virtual Device.
- Learned some algorithms of model extraction attack of the black box.

SELECTED COURSE PROJECTS

Cargo Robot

09/2021-08/2022 (Expected)

Researcher and Developer, Multidisciplinary Manufacturing Project, Department of Electronic and Information Engineering

- Learned how to combine sensors, drive motors and power supply with a microcontroller.
- Designed and actualized a cargo robot that could load and unload goods and move along the given paths automatically.
- Ensured the very accurate movements so that the goods could be transported to the given position using mechanical arms with fixed lengths.
- Tried to apply deep learning to make the robot follow and avoid obstacles automatically.

Robot Car

09/2021-08/2022 (Expected)

Researcher and Developer, Integrated Project, Dynamic Electronic Systems, Department of Electronic and Information Engineering

- Applied a PID controller to control a two-wheel car moving straight and reach the target velocity.
- Used microcontrollers and Bluetooth blocks to remotely control the car.
- Adopted sensors and microcontrollers to control the car moving along the given black line within a limited time, and the car stopping against the wall within a limited time and distance.
- Used sensors and microcontrollers to play relay race of two cars along a given line without crashing in a limited time.
- Commanded how to use C language to control Atmega328p and STM32F103.

ACHIEVEMENTS/AWARDS

 2021/22 HKSAR Government Scholarship of HKD 80,000, HKSAR Government 	2021			
 Dean's Honours List in 2020/21 academic year, Faculty of Engineering, HKPU 	2021			
 Best Semester GPA Award in 2020/21 Sem 1, Department of Electronic and Information Engineering, HKPU 	2021			
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 Dean's Honours List in 2019/20 academic year, Faculty of Engineering, HKPU 	2020			

ACTIVITIES

- *Internal Vice President*, Students' Union Chinese Mainland Students' Association, HKPU 04/2020-05/2021 Content: Managed a team of 15 secretaries. Co-finished a year plan of nearly 100,000 words. Organized activities for 900 members and provided useful information and advice for their daily life.
- *Student Assistant*, Department of Electronic and Information Engineering, HKPU 09/2021-11/2021 Content: Assisted the teacher in debugging electronic devices, capturing students' learning situations, and solving problems.

TECHNICAL PROFICIENCIES

• Computer skills: C/C++, Python, MATLAB, MySQL, SolidWorks, AutoCAD, Office, Adobe PS, Adobe PR.

Languages: Mandarin (native), English (fluent), Cantonese (beginner).