SANJEEW KANAGARAJ

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EDUCATION

The University of Hong Kong, Hong Kong

Sept 2017 - May 2021

Bachelor of Engineering, Major in Computer Engineering.

Relevant Coursework: Computer Vision, Machine Learning, Computer Programming in C, C++ & Python, Calculus, Probability and Statistics, Linux Shell & Bash, Data Structures & Algorithms.

EXPERIENCE

Scout Bots, Hong Kong

March 2019 - Sept 2019

Embedded Computer Vision Intern

- Worked on the coral reef mapping drone that automates the mapping of coral reefs.
- In charge of the training and deployment of onboard neural network to classify coral types. Built using Tensorflow and Keras.
- Assisted in modifying electronic components to ensure accurate mapping and stitching of images.

Quokka Reward, Hong Kong

March 2019 - Sept 2019

Full stack Web Developer Intern

- Worked directly under the CTO as Full Stack developer for the Quokka Rewards platform.
- Responsible for the development of Django Restful API as well as data analytics to show effectiveness of the platform.

The University of Hong Kong, Hong Kong

Dec 2018 - March 2019

Research Assistant

- Working under Dr. Joe C.H. Yuen on building a cloud-based AI Chabot that helps students learn how to code by answering questions.
- Responsible for the full stack construction and deployment of the chatbot analyzing hundreds of student submissions for common mistakes.
- Worked with Machine Learning, Natural Language Processing, Dialogflow, Microsoft Bot Framework, and Node is.

The Bangkok Patana School, Bangkok, Thailand

Dec 2018 - Jan 2019

Robotics Engineer and STEM Educator

- Demonstrated the workings of a sensory controlled car with Arduino programming and helped students build ones of their own.
- Held workshops on Artificial Intelligence, Neural Networks, Cryptography, and Deep Learning for high school students.

RELEVANT PROJECTS

Facial Expression Classifier

Trained a neural net to detect emotions using facial expressions. Built using Keras.

Morse code Encoder and Decoder

Constructed a Morse code Encoder and Decoder that could decode incoming Morse Code inputted from a microphone. Built using Verilog on a FPGA board

Raspberry Pi Ping-Pong

Programmed two RaspberryPi's fitted with SenseHat to play a two-player ping pong game over a network using the MQTT protocol. Built using Python.

ACHEIVEMENTS

- Awarded \$48,00 by the Gallant Ho Fund to lead a team of HKU students on an experiential learning trip in the Philippines to test the coral reef mapping drone in partnership with UOP.
- Selected as mentor for HKU STEM 19
- Awarded HKU Foundation Scholarship covering tuition upon admission.
- Won first place in HKU Rube Goldberg machine competition in 2018.
- Awarded Outstanding Cambridge Learner Award for Advanced level results in 2017.