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Github: <a href="https://github.com/jiffij">https://github.com/jiffij</a>

### **EDUCATION**

# Nanyang Technological University, Singapore

Aug 2023 - May 2024

## Master of Artificial Intelligence (MSAI)

CGPA: 4.65/5.0, Highest TGPA: 4.8/5.0

### The Hong Kong University of Science and Technology

Sep 2019 - Jun 2023

## **Bachelor of Engineering - BE, Computer Engineering (CPEG)**

- Second Class Honor, Division 1, CGPA: 3.293/4.3, MCGA: 3.438/4.3
- Dean's List for Semester 2, Academic Year 2022/2023

### **ACHIEVEMENTS**

## **HKSAR Government Scholarship Fund - Endeavour Merit Award**

June 2021

Give recognition to students in the pursuit of excellence in academic.

## Best Final Year Project Award - First Runner up

Jun 2023

A Healthcare Mobile App for Patients – Dr. UST

### **PROJECT**

# Best Final Year Project - Dr. UST

 Dr. UST is a groundbreaking telemedicine app, leveraging machine learning for efficient skin lesion diagnosis, enhancing accessibility for both medical staff and patients, particularly valuable during pandemics.

### **Image Panorama**

• It is an implementation of Image-Panorama build from scratch using only NumPy. The algorithm basically includes Fast + Brief + Homography + RANSAC.

## **Trust Prediction**

 This is an implementation of trust prediction by elevating self-evolving multilayer perceptron (seMLP), from scratch, on Capitaland Ascendas REIT prediction.

## **CSWin SlidingWindow**

This project introduces an alternative approach to the CSWin Transformer. The original model employs a
Cross-Shaped Window self-attention mechanism and Locally Enhanced Positional Encoding (LePE). Our
version enhances the multi-head attention mechanism by integrating a sliding window self attention
mechanism method and increasing the number of splits, aiming to refine the attention process and boost
efficiency.

# PlantTraits prediction

In this challenge, we build a VIT-MHA ensemble model for participating the PlantTraits2024 Challenge. The
goal of the challenge is to predict the 6 plant traits most accurately. We ranked top 10% in Kaggle
Leaderboard by the time of submission.

## Personal Identity Information (PII) Classification

• I modified the architecture of the SHA-RNN model and leverage MobileBERT to classify Personal Identity Information (PII).

\* Feel free to explore my personal webpage and GitHub for more details of projects I have done

#### **WORK EXPERIENCE**

CoolRIOTS Pte Ltd 07-2024 - Now

### **Al Engineer**

- Involved in building BeX AI platform.
- Build dynamic NLP chains and operations for the AI platform.
- Building Contextual Retrieval RAG system

# Information Technology Service Center (ITSC) in HKUST

06-2022 - 06-2023

### **Programmer**

• Involved in building a facial recognition door lock system for the entire campus. My duties include a facial recognition pipeline (frontend and backend). For instance, building facial recognition model with feature extraction, setting up environment for face recognition with Jetson Nano, raspberry Pi 4 and Rock Chip, NFC card emulation, building connection between frontend and backend, training the face model on the local server side, building an android app for registering face with facial landmark, and controlling door lock system through hardware communication.

# **HKSAR Census and Statistic Department**

07-2021 - 08-2021

## Enumerator

- Visit and interview families.
- Record new changes to map.

#### **SKILLS**

Language: Cantonese, English, Mandarin

**Programming Language**: C++, Python, Java, JavaScript, Flutter, React Native, React, NodeJS, Node, R, SQL, HTML, Linux Shell script

**Tools**: Numpy, OpenCV, Scikit Learn, Tensorflow, Keras, Pytorch, Pandas, NLTK, Gensim, spaCy, Transformers, Three.js, Flask, Socket.io, Firebase, OpenGL, Lucene, etc.

Mathematics: algebra, calculus, statistics, and probability, etc.

## **Data Analysis & Processing**

**Familiar with Machine Learning Architectures:** MLP, CNN, RNN, KNN, Transformer, Auto-Encoder, GAN, RL, SVM, etc.

Frontend and backend development (Web and mobile application)

# **HOBBIES & INTERESTS**

Travelling	Snorts	(Swimming	Rowling	Rody	Ruilding)	Sculnting	Building Programs
mavounig,	Opoito	(OVVIIIIIIII)	DOWNING,	Doay	Duituing	Ocutpung,	Duituing Frograms