

# Tse Man Kit Michael

Senior AI engineer



+852 6502 8747



<https://github.com/michaeltmk>



<https://www.linkedin.com/in/man-kit-michael-tse-4013a5176/>



[tse.man.kit.michael@gmail.com](mailto:tse.man.kit.michael@gmail.com)

## About me

A quick learner, explorer, with Science and Engineering background, who have a great interest in new technology that may change the world. I am interested in working for a fast-growing and challenging company that will encourage my growth and development, so as to be the most efficient and effective employee I can possibly be.

## Skills

Python, GoLang, JavaScript, C++, SciPy, ScikitLearn, Matlab, TensorFlow, Keras, Pytorch, ROS, Gazebo, kafka, MQTT, spark, SQL, NoSQL, Elasticsearch, Arduino, Raspberry Pi, docker, k8s, kubeflow, AWS, databricks, NGINX, LoRa, sigfox

## Experience

**2021-now** Senior AI Robotic Engineer, scrum master Varadise, Hong Kong  
Managed cross-functional team of 9, ranging from site-work technicians to senior software engineer, and collaborated with business development, operations and marketing.  
Developed and launched IoT-Hub which managed > 1800 iot devices with > 60 devise type.  
Managed iot team and reviewed code to develop a scalable data pipeline which is stable for 9M message per day for now.  
Standardized the all time series data input and output schema format including internal and external standard.  
Managed AI team, developed and reviewed code of ML application products for CV, such as wheel cleanliness and dump truck cover detection etc., which have been deployed to more than 10 projects.  
Managed and reviewed code of the development of MLOps, Devops, robotic simulation and chat bot.

**2020-2021** Data Engineer DreamsAi, Hong Kong  
Developed a card detection ML model for detecting 6 playing cards in a specific location, which have almost reach the human baseline.  
Developed a email classification with MLOps cycle which will auto re-train every 12 hours.  
Been responsible for web scraping, data migration, server infrastructure and networking setup.  
Managed the internal knowledge base (knowledge Engineer)

**2017-2020** Technical Support Engineer PTC International Limited, Hong Kong  
Provided technical support, demonstration, documentation and troubleshooting.  
Customized data-loggers with alarm function and dashboard using Raspberry Pi, Arduino, or any other programmable data-logger with python or c++.  
Set up and troubleshoot wired or wireless network issues (TCP/IP, RS485/RS232, modbus commands, WiFi).

## MOOCs

**Jun 2021** Machine Learning Engineering for Production (MLOps) Specialization Deeplearning.ai  
*Learnt how to deploy ML in production, such as data lifecycle, model pipeline as well as deployment pipeline.*

**Jun 2020** IBM AI Engineering Specialization IBM  
*Learnt to use SciPy, ScikitLearn, apache spark, Keras, PyTorch.*

**Mar 2020** IBM Data Science Specialization IBM  
*Understood the fundamental theories of data science. Learnt to use the ibm cloud, cloud programming, SQL, pandas library, geojson data and beautiful soup package. Link to the capstone project: [Analysis of population and Venue distribution in Hong Kong](#)*

**Feb 2020** Deep Learning Specialization Deeplearning.ai  
*Understood and Practiced on object detection, face recognition, neural style transfer, language translation, speech to word translation, ResNet, Inception, R-CNN, YOLO, CTC, optimizing metrics, dataset distribution strategy, IoU, Bleu score.*

**Nov 2019** Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning Certificate Deeplearning.ai  
*Practiced on CV, NLP, and Sequence Prediction using TensorFlow. Learnt to the concepts of CNN, RNN/LSTM, dropout layer, batch normalization, learning rate adjustment etc.*

# Tse Man Kit Michael

Senior AI engineer



+852 6502 8747



<https://github.com/michaeltmk>



<https://www.linkedin.com/in/man-kit-michael-tse-4013a5176/>



[tse.man.kit.michael@gmail.com](mailto:tse.man.kit.michael@gmail.com)

## Education

2019-2021 MBA in Quantic School of Business and Technology

2017-2019 MSc in Mechanical Engineering, The Hong Kong Polytechnic University

2010-2015 BSc in Maths. & Phys., The University of Hong Kong

## Languages

Cantonese



Mandarin



English



German



## Self-Projects

- 2021 Telegram Bot  
*Chat bot which can report weather by command and submit e-forms. Controlled devices and sent alert of IoT projects.*
- 2020 HA AI Challenge Hospital Authority  
*A competition organized by HKSTP and HKHA. Used effectiveness for classifying around 30 surgery tools.*
- 2020 Analysis of population and Venue distribution in Hong Kong IBM  
*Used K-means clustering to analysis the relationship between population and venues distribution in HK.*  
<https://shorturl.at/tDFJV>
- 2019-2020 OCR (captchas breaking)  
*Demonstrated on computer vision aim with CNN, data argumentation techniques, written in Tensorflow. Trained on captchas collected in web and a captchas simulator.*  
[https://github.com/michaeltmk/Captcha\\_cracker](https://github.com/michaeltmk/Captcha_cracker)
- 2019-2020 Wireless Temperature and RH sensor  
*Connected to a self-hosting server using a wifi single chip board.*  
[https://github.com/michaeltmk/StandAlone\\_T-H\\_sensor](https://github.com/michaeltmk/StandAlone_T-H_sensor)