YI Chunxiao

Mobile: +86 13602218449 | **E-mail:** y.chunxiao@u.nus.edu | **LinkedIn:** https://www.linkedin.com/in/chunxiao-yi-a2a424220

EDUCATION

National University of Singapore (NUS)   **Aug 2021 – Jan 2023**

- Master of Statistics (Honours with Distinction)
- Graduate Certificate in Statistics for Data Science (**Skills**: Python, R, SQL, Tensorflow)

North Carolina State University (NCSU)   **Jul 2020 – Aug 2020**

- Summer Exchange Program in Machine Learning and Its Application

China Agricultural University (CAU)   **Sep 2017 – Jul 2021**

- Bachelor of Mathematics and Applied Mathematics (GPA: 3.78/4.0 Ranking: 3/51)

  Skills: supervised/unsupervised/semi-supervised learning, machine learning and data analysis
- CAU Outstanding Student Award with Scholarship (5%) (2019 & 2020)

WORKING EXPERIENCE

MGI   **Feb 2023 – present**

Data Scientist

- Developed data analysis algorithms according to different project needs **(Python & HPC)**.
- Designed analysis result report template (HTML) to provide structured interpretation for customers.
- Collaborated with international colleagues to build analysis pipeline for large-scale data.

Institute for Health Innovation & Technology (iHealthtech)   **Jun 2022 – Aug 2022**

Data Science Intern (with paper published by IEEE Sensors Journal)

- Collaborated in a multi-functional end to end data science project of monitoring scratching patterns with patients with skin diseases.
- Collected hand movements data with designed structure, removed noise from hand movements data and visualized data in Python.
- Designed a neural network model (CNN + LSTM) to identify itching patterns, achieving overall accuracy: 95%, precision: 95%, recall: 95% **(Python)**.

RESEARCH EXPERIENCE

Modified Unsupervised Feature Extraction Method For Complex Datasets   **Jan 2021 – Aug 2021**

Role: Project Lead

- Identified the shortcomings of typical feature extraction methods such as PCA, LPP, NPE, t-SNE, etc.
- Developed an improved model of unsupervised feature extraction method (W-map). (MATLAB)
- Improved accuracies of benchmark model, with the average classification accuracy: 95.62% (benchmark model (BM): 94.75%), overall accuracy: 95.67% (BM: 93.82%), Kappa Coefficient: 95.19% (BM: 90.24%).

AI Detection of Airplane Images (Paper Published by IntelliSys2022)   **Jul 2020 – Aug 2020**

Project Lead (first full-funded summer exchange program led by CAU student)

- Led a team of 3 and applied neural network algorithm, Mask R-CNN, to detect planes in images, and identified the roles and makers of each plane **(Python & Tensorflow)**.
- Devised a new algorithm based on Mask R-CNN and feature engineering to do the classification tasks on airplanes' roles and makers.
- Enhanced the classification accuracies on makers of airplane with an overall precision rate of 85% (benchmark model: 40%).

ADDITIONAL INFORMATION

Teaching Assistant of NUS Master Module: Advanced Analytics and Machine Learning   **Jan 2022 – May 2022**

- Delivered tutorials in an innovative way every week, to explain complex concepts in a simple way.
- Tutorials include contents about text mining, supervised learning and unsupervised learning, etc.