Mr. Wan Zhuoyue

Birthday: 14/01/2000 | Mobile: +852 93692400 | E-mail: zwanah@connect.ust.hk
Address: FLAT D, 32/F, BLOCK 7, EAST POINT CITY, TSEUNG KWAN O, NEW TERRITORIES, HONG KONG

EDUCATION

Master of Science in Data-Driven Modeling, The Hong Kong University of Science and Technology(GPA:4.12/4.3)	**09/2022-08/2023**
Bachelor of Science in Statistics, Chongqing University(GPA:85.02/100)	**09/2017-06/2021**

RESEARCH EXPERIENCE

Trustworthy Medical Image Classification(Supervised by Asst. Prof. Hao Chen, HKUST) **10/2022-Now**

- ✓ Contributed to the joint submission to **ICCV2023**, providing rigorous and meticulous theoretical derivations of the method;
- ✓ Conducting research as a Research Assistant**;**
- ✓ Investigating topics such as shortcut learning, debias, fairness, and long-tail data in Medical Computer Vision;
- ✓ Establishing a medical debias benchmark in mitigating bias in medical image classification;

Medical Image Segmentation(Supervised by Prof. Yang Xiang, HKUST) **09/2022-Now**

- ✓ Reproducing a Medical Image Segmentation paper that includes an Elastic Interaction-Based Loss Function;
- ✓ Conducted multi-label segmentation in GI tract images for stomach, large bowel, and small bowel classes;
- ✓ Extended a two-dimensional loss function to its three-dimensional form;
- ✓ Applied the Elastic Interaction-Based loss function extension to a new domain;
- ✓ Reproducing a Retinal Image Restoration paper;

Prediction of "High to turn" in the stock market(Supervised by Prof. Zhimin Zhang, CQU) **09/2020-06/2021**

- ✓ Built theoretical models such as Stacked XGBoost, LightGBM, CatBoost, LR, RFC, and SVM models;
- ✓ Conducted analysis of "High to turn" phenomenon and utilized predictive modeling to forecast its occurrence;

Long-tailed Visual Recognition

- ✓ Conducted comparative analysis of state-of-the-art methods in Long-tailed Visual Recognition;
- ✓ Applied the proposed solutions to address the challenges of long-tailed distribution, including data and feature imbalance, in medical image datasets;

Retinal Image Restoration using Transformer and Cycle-Consistent GAN

- ✓ Translated low-quality images to high-quality images;
- ✓ Combinated vision transformer (ViT) encoder and convolutional neural network (CNN) decoder;

Predict the 2022 College Men's Basketball Tournament(Kaggle)

- ✓ Predicted the 2022 College Men's Basketball Tournament using a logistic linear regression model;
- ✓ Achieved excellent forecast results with a simpler model, showcasing strong analytical abilities;

GI Tract Image Segmentation

- ✓ Multi-Label(Stomach, Large Bowel and Small Bowel classes) segmentation;

HONORS & AWARDS

Second Prize (National level), **The Chinese Mathematics Competitions**	**11/2018**
Third Prize (National level, Top 6%), The 8th TipDM Cup Data Mining Challenge Committee	**06/2020**
Second-class Scholarship (Top 2%), Chongqing University	**05/2021**
Third-class Scholarship (Top 5%), Chongqing University	**11/2018**
Advanced Individual of Scientific and Technological academic innovation (Top 1%), Chongqing University	**12/2020**
Outstanding Student (Top 1%), Chongqing University	**01/2019**
Third Prize(Top 5%), The 2nd "Mathematics and Statistics Cup" Mathematical Modeling Challenge	**05/2018**

PROJECT EXPERIENCE

Team leader (3 people), the 8th "TipDM Cup" Big Data Mining Race(National-level) **07/2019-08/2019**

- ✓ Awarded Third Prize at the national level for an analysis of the "High to turn" phenomenon in the stock market;
- ✓ Led a team in building theoretical models such as BP neural network and Logistic models, as well as data collection and programming implementation using R;
- ✓ Conducted in-depth analysis to predict the occurrence of "High to turn";

Prediction of "High to turn" in the stock market based on Stacking Ensemble model **10/2020-06/2021**

- ✓ Developed a Stacking Ensemble model using Python to predict the "High to turn" phenomenon in the stock market;
- ✓ Improved classification performance by utilizing Stacked XGBoost, LightGBM, CatBoost, LR, RFC, and SVM;
- ✓ Continued the previous project and achieved better results with the Stacking Ensemble model;

INTERNSHIP

Intern, Capital Business and Risk Management Department, Nanchang Xiangtang Railway Port Development Co., Ltd.	**29/06-28/08/2020**
✓ Participated in product risk assessment and evaluated the degree of risk during the loan approval process;	
✓ Processed data, reviewed and compiled the statistical statements;	
Intern, Business Marketing Department, China Construction Bank	**14/01-14/02/2020**
✓ Built models in credit crisis management and bad debt analysis;	
✓ Formulated strategies for attracting customers;	
✓ Evaluated investment risks facing consumers;	

PROFESSIONAL SKILLS

Knowledge:	Strong mathematical background(Mathematical analysis, Advanced algebra, Numerical analysis, Partial differential equation, Real Analysis), data-driven background(Network modelling and Statistical machine learning) and optimized theory background(Information science, Operational research)
Programming:	Python, R, SPSS, SAS, Matlab, C++
Language:	IELTS: 6.5 (L: 7.0 R: 7.0 W: 6.5 S: 5.5)