Zihao Ye

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EDUCATION

Beijing University of Posts and Telecommunications 09/2019 – 06/2023
Bachelor of Science (Engineering) with Honours, First Class

Queen Mary University of London Joint Program, London

International School of BUPT, Beijing | Overall GPA: Top 10%

PREPRINT

Improving Image de-raining Models using Reference-guided Transformers

Authors: Zihao Ye, Jaehoon Cho, Changjae Oh

Status: Work in Progress

Target Conference: 2024 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)

RESEARCH EXPERIENCE

Tsinghua University 04/2022 – Present
TSAIL Group | Statistical Artificial Intelligence & Learning | Supervised by Prof. Jianfei Chen

- Utilized fully quantization training for low-precision training on the Diffusion Model EDM, resulting in accelerated training
- Explored the application of stochastic depth and attention head dropping techniques as replacements for dropout in deep neural networks to provide implicit regularization
- Evaluated the stochasticity of these methods to gauge their respective strengths in implicit regularization and assessed their impact on training speed

Beijing University of Posts and Telecommunications 01/2022 – 04/2022
Pattern Recognition and Intelligent System Laboratory

- Implemented text classification tasks on the THUCNews dataset using CNN and RNN models
- Employed various image processing methods such as Harris Corner Detector and changing color model to image pre-processing so that the accuracy and coherence of image recognition tasks in FGIA are perfected

Nanyang Technological University 01/2020 – 04/2020
Artificial Intelligence Internship Program | Supervised by Dr. Teik Toe Teoh

- Utilized Particle Swarm optimization to adjust various hyperparameters of an image classification task with an MNIST dataset and CNN model
- Established correlations between indicators and trends of fertility decline using shallow neural networks and SoftMax
- Determined the prevalence of diabetes within a given sample based on parameters such as plasma glucose concentration, blood insulin concentration, and blood pressure two hours after meals

PROFESSIONAL EXPERIENCE

Southwest Securities 08/2021 – 01/2022
Machine Learning Quantitative Researcher (Intern) | Quantitative Investment Department

- Developed an automated framework using Selenium and Wireshark for data collection, analysis, and preprocessing
- Utilized wavelet transform to filter noise from the data, resulting in improved data quality and success rate
- Employed different regression models, LSTM, and other neural networks to construct a secondary stock market price prediction model
- Applied Decision Tree and bagging techniques to form a decision-making function and made necessary model adjustments

China Construction Bank 07/2020 – 09/2020
Financial Technology engineer (Intern) | Fintech Department

- Maintained the financial product recommendation system based on deep learning
- Assisted in collecting, cleaning, and analyzing relevant data on the growing presence of FinTech in the pharmaceutical industry

SKILLS

Language: Python, Java, MATLAB, Verilog, Arduino, C++, C, JavaScript