

# Zihao Ye

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## EDUCATION

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### 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 BUCT, Beijing* | Overall GPA: Top 10%

## PREPRINT

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### Improving Image de-raining Models using Reference-guided Filters

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

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### Tsinghua University

04/2022 – Present

*TSAIL Group* | *Statistical Artificial Intelligence & Learning* | Supervised by Prof. Janfei 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

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### 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 Developer (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**

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