

CHEN Xiantao

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EDUCATIONAL BACKGROUND

The Chinese University of Hong Kong

2024.09-2025.06(Expected)

MSc in Mathematics

South China Normal University (211 Project University)

2019.09-2023.06

School of Mathematical Sciences | Information and Computing Sciences | Bachelor of Science

INTERNSHIP EXPERIENCE

iFLYTEK Company. Ltd.

Hefei, China

Assistant Algorithm Engineer in Intelligent Vehicles Business Division

2022.09-2023.12

- Training language models in multiple languages (Russian, Spanish, English).
- Writing automated scripts to pre-process text data.
- Interfacing with product managers and testing to independently complete speech recognition business processes.
- Test and evaluate speech recognition models as a whole to optimize processes and improve accuracy.

The Nielsen Company (Guangzhou) Ltd.

Guangzhou, China

Data analyst in TNT (Technology and Telecommunication) Department

2022.03-2022.06

- Quantifying the feedback data and cleaning, filtering, and building data dashboard to produce the final reports.
- Creating crawler software to capture the parameters, prices, and release dates of the target brand's products in different countries.
- Building a hierarchical model of the customer through data insights.

RESEARCH EXPERIENCE

The Chinese University of Hong Kong Advanced Biphotonic Imaging Laboratory (ABI Lab)

2022.12-2023.05

- **Project Participation:** Collaborated with PhD students on the research of semantic segmentation algorithms for medical images and prepared for the submission of papers to the MACCAI conference.
- **Responsibilities:** Image data processing, algorithm reproduction and image quality evaluation tools such as SNR and CNR.

LSTM-based Multivariate Short-term Forecasting of Electricity Loads, (*Competition & Paper*)

2022.04-2022-06

Paper accepted for publication in Modern Information Technology (ISSN: 2096-4706), August 2022

PROJECT EXPERIENCE

Gobang simulation teaching platform, *Team Leader, Team of 5*

2020.11-2022.05

- **Objective:** Establish a web application framework for algorithm teaching and online chess competitions.
- **Technical Approach:** Employ Django as the platform framework, and adopt Monte Carlo Tree Search and Convolutional Neural Networks as the chess - playing algorithms.
- **Responsibilities:** Building the basic framework; Involving in the implementation of the deep neural network algorithm.
- **Final Achievements:** The project was recognized as a national innovation and entrepreneurship project, and obtained a patent.

CT Image Bone Segmentation Based on Deep Learning, (*Independent Research*)

2023.01-2023.06

- **Achievement Objectives:** Solve the problem of bone segmentation in CT images with the presence of vascular contrast agents, reduce annotation costs, improve segmentation accuracy, and assist in orthopedic diagnosis.
- **Technical Approach:** Utilize combined network of U-Net, Resnet50 and DnCNN, with pre-training and fine-tuning techniques.
- **Final Outcomes:** The combined model demonstrated excellent performance which achieved an accuracy of 95.6%.

COMPETITION ACHIEVEMENTS & HONORS

- **National First Prize** of Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) in 2021
- **National First prize** in the undergraduate category of the "Teddy Cup" Data Mining Competition 2022
- **Regional First Prize** in Guangdong-Hong Kong-Marco Greater Bay Area Financial Mathematical Modelling Competition
- **School Scholarships** for the academic year 2019-2020, 2021-2022, 2022-2023

SKILLS & OTHERS

Languages: English (IELTS: 6.5(6)), Mandarin (native), Cantonese (beginner)

Computer: Python (pytorch, tensorflow, pandas, sklearn), Linux, LaTeX, C++, MATLAB, SPSS, R, MS Office.