Bowen Zhang

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Education

South China University of Technology

Bachelor of Software Engineering, GPA:3.85/4.0 (90.42/100.0, Excellent Engineer Class)

Sep 2021 – Jun 2025 *Guangzhou*

Relevant Coursework

• Linear Algebra

• Mathematical Analysis

Machine LearningDeep Learning

Discrete MathematicsData Structures

• Data Mining

• Database System

Experience

Machine Learning and Data Mining Lab (advised by Qianli Ma)

Oct 2023 – Present

Research Intern

School of Computer Science, SCUT

- Mainly focused on research in data mining and time series modeling, especially time series forecasting and classification.
- Recently researched on Mixture-of-Experts and multi-scale modeling, and applied them to time series analysis problems. This paper will be submitted to International Conference on Learning Representations (ICLR).
- Understood graph learning and spatio-temporal data mining, including graph neural network, GCN, GAT, etc.

CityMind Lab (advised by Yuxuan Liang)

May 2024 – Present

Research Intern

Hong Kong University of Science and Technology (Guangzhou)

• Researched on time-series analysis and spatio-temporal data mining, especially foundation models.

Key Laboratory of Big Data and Intelligent Robot (advised by Yi Cai)

Mar 2023 - Present

 $Research\ Intern$

School of Software Engineering, SCUT

- Researched on natural language processing and LLM, engaged in practical research on models, ChatGLM, etc.
- Finished the project "WiseSight: AIGC-based Smart Glasses for Elderly Life Assistance". This project has won the First Prize of National College Students' Software Innovation Competition (South China) and National Second Prize.
- Researched on LLM hallucination and RAG technology, developing the project "Natural Language Content Matching System Based on LLM". Responsible for work on search engine augmentation.

Projects

WiseSight: AIGC-based Smart Glasses for Elderly Life Assistance | Python

Oct 2023 - Present

- Aimed at elders and adopted a Client-Server architecture, using ChatGLM as LM base and fine-tuning.
- It performed Intelligent Interaction, Assisted Reading, Item Searching and Emergency Assistance function modules.
- Developed object recognition and scenario recognition for Item Searching, utilizing object detection models, like detic.
- Wrote innovative project documents, software development documents, and software testing documents.

Beyond Guessing: Data-Driven Exploration of Word Features and Relationships Python, PATEX

Feb 2023

- Used ARIMA model to solve problems related to time-series analysis, determined ACF & PACF values and forecasted.
- Used the K-means clustering method to determine the difficulty level of the problem, TOPSIS entropy weight analysis.
- Utilized SPSS and Matlab for data preprocessing, analysis and visualization. Proficient in using LATEX to write paper.
- This paper received Finalist (Top 0.17%) in Mathematical Contest In Modeling. [Paper Link]

Technical Skills

Programming Languages/Software: Python, C++, Java, Matlab, IATFX, PyTorch, SQL, Linux

English Level: CET6: 512, CET4: 567

Honors and Awards

• National Scholarship (rank: 1/49)	2022
• Top Ten Excellent Student Models of SCUT (The best honor for undergraduates	in SCUT) 2023
• Top Ten Excellent Communist Party Members Nomination Award of SCUT	2024
• First Prize Scholarship of South China University of Technology (rank: 2/49)	2023
• Finalist of Mathematical Contest In Modeling (MCM, Top 0.17%)	2023
• First Prize of Chinese Mathematics Competitions (CMC)	2022 and 2023 (twice)
• Gold Prize of National College Student Algorithm Design and Programming Challenge	2023
• First Prize of Guangdong Province College Student Computer Innovation Competition	2024
• Second Prize of MathorCup College Mathematical Modeling Challenge	2023

Monitor of class Sep 2022 – Present

South China University of Technology

- Led class to receive Top Ten Excellent Classes Nomination Award of South China University of Technology in 2023.
- Talented in Mathematical Analysis (Score: 98, rank: 1/124), received Excellent Auxiliary Volunteer.