

BOWEN ZHANG

Guangzhou, China

☎ 133-8790-6909

✉ zhangbw0102@gmail.com

🌐 <https://01Zhangbw.github.io/>

Education

The Chinese University of Hong Kong

Aug 2025 – Jul 2029

Incoming Ph.D. of Systems Engineering and Engineering Management (Information Systems) Supervisor: Prof. Xunying Liu

South China University of Technology

Sep 2021 – Jul 2025

Bachelor of Software Engineering, GPA: 3.87/4.0 (90.65/100.0, Rank 4/49, Excellent Engineer Class) Guangzhou, China

Relevant Coursework

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|-------------------------|--------------------|------------------------|-------------------|
| • Mathematical Analysis | • Machine Learning | • Discrete Mathematics | • Data Mining |
| • Linear Algebra | • Deep Learning | • Data Structures | • Database System |

Selected Work

Toward Physics-guided Time Series Embedding

arxiv, 2024

Jiaxi Hu, Bowen Zhang, Qingsong Wen, Fugee Tsung, Yuxuan Liang

ICLR2025, under review

Hierarchical Patch GNN for Irregular Multivariate Time Series Modeling

2024

Yicheng Luo, Bowen Zhang, Zhen Liu, Qianli Ma

ICLR2025, under review

Honors and Awards

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|---|-----------------------|
| • National Scholarship (Top 0.2% nation-wide) | 2022 |
| • Top Ten Excellent Student Models of SCUT (15k RMB, Only 10 of all undergraduates at SCUT) | 2023 |
| • Finalist of Mathematical Contest In Modeling (MCM, Top 0.17% world-wide) | 2023 |
| • Top Ten Excellent Communist Party Members Nomination Award of SCUT (Top 0.02% at SCUT) | 2024 |
| • Shenzhen Haopeng Technology Diligence Scholarship (10k RMB, Rank 1/412) | 2024 |
| • First Prize Scholarship of South China University of Technology (Top 2% at SCUT) | 2023 |
| • First-class of Hongping Changqing Technology Innovation Scholarship of SCUT | 2024 |
| • First Prize of Chinese Mathematics Competitions (CMC, Top 7.8% provincial) | 2022 and 2023 (twice) |
| • Gold Prize of National College Student Algorithm Design and Programming Challenge (Top 5% nationwide) | 2023 |
| • First Prize of Guangdong Province College Student Computer Innovation Competition (Rank 2/333) | 2024 |
| • Second Prize of MathorCup College Mathematical Modeling Challenge | 2023 |

Experience

CityMind Lab (advised by Prof. Yuxuan Liang)

Jun 2024 – Present

Research Intern

Hong Kong University of Science and Technology (Guangzhou)

- Researched on time-series analysis and spatio-temporal data mining, including expert models and foundation models.
- Worked on Physical Time-series Embedding. Finished most of experiments, including Linear, CNN, SSM, Transformer.

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

Oct 2023 – Sep 2024

Research Intern

School of Computer Science, SCUT

- Researched on data mining, including time series modeling and graph neural network.
- Researched on efficient AI, including Mixture-of-Experts. Explored the MoE and multi-scale modeling in time-series.
- Involved one work about irregular time-series (clinic data) and GNN. Paper (Hi-Patch) was submitted to ICLR2025.

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

Mar 2023 – Jun 2024

Research/Project 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 won five prizes, including the First Prize and Best Innovation Prize of Guangdong College Student Computer Innovation Competition.
- 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 – Jun 2024

- 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 detec.
- Wrote innovative project documents, software development documents, and software testing documents.

Beyond Guessing: Data-Driven Exploration of Word Features and Relationships | *Python, L^AT_EX*

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 L^AT_EX to write paper.
- This paper received Finalist (Top 0.17%) in Mathematical Contest In Modeling. [\[Paper Link\]](#)

Leadership / Extracurricular

Monitor of class

Sep 2022 – Present

Honored Excellent Student Cadre many times

South China University of Technology

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