# Bowen Zhang

Guangzhou, China

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#### Education

### South China University of Technology

Sep 2021 - Jun 2025

Bachelor of Software Engineering, GPA:3.84/4.0 (90.32/100.0, rank:4/49 Excellent Engineer Class)

Guangzhou

#### Relevant Coursework

• Linear Algebra

- Mathematical Analysis
- Machine Learning • Deep Learning
- Discrete Mathematics • Data 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.
- Understood graph neural network and spatio-temporal data mining, including graph neural network, GCN, GAT.

## 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 and Qwen, etc.
- Completed the project "Smartvision: AIGC-based Smart Glasses for Visually Impaired Travel Assistance" and won the Second Prize of National College Students' Software Innovation Competition (South China Area).
- Recently researched on LLM hallucination and RAG technology, developing the project "Natural Language Content Matching System Based on LLM".

### **Projects**

# Smartvision: AIGC-based Smart Glasses for Visually Impaired Travel Assistance | Python Oct 2023 - Present

- Aimed at visually impaired individuals and adopted a Client-Server architecture, using ChatGLM as LM base.
- The project performed intelligent QA, smart navigation, object recognition and intelligent obstacle avoidance functions.
- Writed innovative project documents, software development documents, and software testing documents.
- Developed the object recognition, utilizing object detection models such as mmdetection, detic, YOLO-World, etc.

#### Beyond Guessing: Data-Driven Exploration of Word Features and Relationships Python, LaTex 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 MCM (Mathematical Contest In Modeling).

#### Technical Skills

Programming Languages: Python, C++, Java, Matlab, LATEX, SQL

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	T) $2023$
• 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
• Second Prize of National College Students' Software Innovation Competition (South Chin	na Area) 2024

# Leadership / Extracurricular

#### 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.