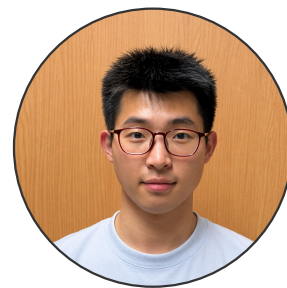


# Kaicheng Mao

DATA SCIENCE STUDENT · AI RESEARCH

Shenzhen, China

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## Education

### SUSTech(Southern University of Science and Technology)

Shenzhen, China

B.S. IN DATA SCIENCE

Sept. 2023 - June. 2027

- GPA: 3.74/4.0 (89.98/100)
- Relevant Coursework: Advanced Natural Language Processing, Data Structures and Algorithm Analysis, Distributed Storage and Parallel Computing, Statistical Linear Model, Data Science Practice(Deep Learning)

### Shenzhen Middle School

Shenzhen, China

HIGH SCHOOL DIPLOMA

Sept. 2020 - June. 2023

## Skills

**Programming** Python, Java, R

**Machine Learning** LLM post-training

**English** IELTS 7.5 (Listening 8.5, Reading 9.0, Writing 6.5, Speaking 6.5), CET-4: 632, CET-6: 584

**Sports** Volleyball, Weightlifting, Powerlifting, CrossFit

## Project Experience

### Deep Learning for Precipitation Nowcasting

DEEP LEARNING RESEARCH PROJECT

Feb. 2026 - Present

- Enhanced the SEVIR dataset with NASADEM-derived elevation, slope, aspect, and land-sea information.
- Built geospatial preprocessing foundations for future multi-source data fusion in precipitation nowcasting models.
- Prepared terrain-aware auxiliary inputs to support downstream deep learning experiments for short-term precipitation forecasting.

### Fine-tuning Qwen3-0.6B-Base on Nemotron-CC-Math

LLM FINE-TUNING PROJECT

Mar. 2026 - May. 2026

- Fine-tuned Qwen3-0.6B-Base on Nemotron-CC-Math for mathematical domain adaptation.
- Designed a data cleaning pipeline using only regular expressions and Qwen3 itself, without teacher models, tool-calling, search, or external tools.
- Focused on lightweight, self-contained data filtering and refinement to support reproducible LLM post-training experiments.

### Intelligent Scissors Project

IMAGE SEGMENTATION PROJECT

Apr. 2025 - May. 2025

- Implemented an interactive image segmentation system combining gradient-based edge detection with dynamic pathfinding.
- Applied Sobel operators to compute directional gradients and construct a weighted graph, assigning lower edge costs to stronger image boundaries.
- Used Dijkstra's algorithm for real-time optimal path calculation between user-selected points, with adaptive path stabilization and cursor snapping to maximum-gradient edges within a 5-pixel radius.

## Extracurricular Activity

### GEM Trailblazer Summer, Nanyang Technological University

Singapore

SUMMER PROGRAM PARTICIPANT

Jun. 2024 - Jul. 2024

- Completed coursework in Cities and Urban Life and Introduction to Data Science & Artificial Intelligence.
- Collaborated and built connections with peers from diverse educational and cultural backgrounds.

## SUSTech Volleyball Team

Shenzhen, China

### STARTING SETTER

May 2024 - Now

- Served as the starting setter for the Southern University of Science and Technology varsity volleyball team.
- Competed in the 14th Guangdong University Volleyball League, the 15th Guangdong Volleyball Championship, and the Shenzhen Intercollegiate Sports Competition volleyball event (third place).

## SUSTech Volleyball Club & Varsity Volleyball Team

Shenzhen, China

### PRESIDENT & UNDERGRADUATE CAPTAIN

Sept. 2025 - Aug. 2026

- Led the SUSTech Volleyball Club as president and served as undergraduate captain of the varsity volleyball team.

## Honors & Awards

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*Southern University  
of Science and  
Technology*

2025 **Most Valuable Player**, The 7th SUSTech Volleyball Championship (Student Division)

*Southern University  
of Science and  
Technology*

2025 **Outstanding Student**, Exceptional performance in 2025

*Shenzhen, China*

2024-2025 **Third-class Merit Student Scholarship**, Southern University of Science and Technology

*Southern University  
of Science and  
Technology*

2024 **Outstanding Student**, Exceptional performance in 2024

*Shenzhen, China*

2023-2024 **Third-class Merit Student Scholarship**, Southern University of Science and Technology