

# Zecheng QIU

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## EDUCATION

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[Macau University of Science and Technology](#) (M.U.S.T.)

Macao S.A.R.

[BSc. in Computer Science](#)

Sep. 2023-Present

- CGPA:3.73 / 4.00 (about top 5%)    3.85 at academic year 2024-2025 (about top 3%)
- Selected Grade: Object-Oriented Programming (A+), Web Technologies (A+), Digital Logic (A+), Physics (A+), Probabilities and Statistics (A+), Data Structures (A), Calculus III (A-), Computer Organization (A-)
- Expected Date of Completion: August 2027

## INTERNSHIP

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[CoCreative](#) Information Technology (Shenyang) Co., Ltd

Shenyang, Liaoning Province, P.R.China

Java Software Engineer

Jun. 1-Aug. 30, 2025

- Developed and maintained software functions using Java and JavaWeb technologies.
- Performed SQL query optimization and project performance optimization.
- Wrote code and contributed to the development of company software projects.

## RESEARCH EXPERIENCE

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[PF CFD Team](#)

M.U.S.T, Macao S.A.R.

Researcher

Feb. 2024-Present

- Developed a hybrid numerical method for simulating three-dimensional fluid vesicle dynamics using C and C++, focusing on phase-field modeling in biological systems.
- Optimized data storage strategies in local memory to improve computational efficiency and integrated MATLAB for accurate mathematical modeling and analysis.
- Engineered a multi-vesicle simulation framework based on single-vesicle dynamics, incorporating inter-vesicle surface tension effects from phospholipid interactions.
- Introduced and iteratively refined a custom influence coefficient to model vesicle interactions, aiming to identify a universal value within fixed computational domains.

[Prof. Victor Junqiu Wei](#)'s Team

M.U.S.T, Macao S.A.R.

- Investigated dialogue-based Text-to-Visualization techniques for AI-driven database systems by synthesizing methods from Text-to-TrajVis and text-to-SQL.
- Designed algorithms to convert multi-turn natural language queries into precise visualization instructions using PostgreSQL & PostGIS.
- Leveraged large language models (LLMs) to resolve linguistic ambiguities and generate accurate visual outputs, enhancing interaction with trajectory data.

## **AWARDS & HONORS**

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**2024-2025 [Dean's Honor List](#) of Faculty of Innovation Engineering** **M.U.S.T, Macao S.A.R.**

Awarded for achieving a cumulative GPA 3.70 or above in the corresponding academic year.

**[Entrance Scholarships](#) (Outstanding)** **M.U.S.T, Macao S.A.R.**

Awarded for top ~7% | Awarded in 2023, renewed in 2024 & 2025. Expected annual renewal through 2026.

## **EXTRA-CURRICULAR COURSES**

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**[The University of Hong Kong Summer Institute](#)** **Hong Kong S.A.R.**

*AI Engineer: Gen-AI and Virtual Worlds* Jul. 8-18, 2024

- AI Potential and Tools for development.
- Development of AI Model.
- Practical case studies for AI technologies.
- 3D World and Creation.

## **SKILLS**

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### **Languages:**

- Mandarin (Native Proficiency): National Putonghua Proficiency Test 2-A
- English (Full Professional Proficiency): IELTS (7.0), CET-4 (598)

### **IT Skills:**

- Coding Language: C, C++, Python, SQL, Markdown, LaTeX, HTML, JavaScript, CSS, RISC-V Assembly
- Technologies: Visual Studio Code, MATLAB, Makefile, PyCharm, Microsoft Office, WPS

## **MEMBERSHIP**

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[Institute of Electrical and Electronics Engineers](#) (IEEE): Student Member

Dec. 2024-Present

[China Society of Image and Graphics](#): Student Member

May 2024-Present