

# ZHE DING

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## EDUCATION

### The Hong Kong University of Science and Technology (Guangzhou)

M.Phil. in Artificial Intelligence (*with Full Scholarship*)

Supervisor: Zeyu Wang, Pan Hui

Guangzhou, China

September 2024 – Present

### University of California, Berkeley

Visiting student

Berkeley, USA

September 2023 – December 2023

### Southern University of Science and Technology

B.Eng. in Computer Science

Supervisor: Shiqi Yu

Shenzhen, China

September 2020 – July 2024

**Key courses:** Operating Systems (99/100), Digital Logic (93/100), Computer Organization (92/100), Software Engineering (94/100), Computer Vision(92/100), Computational Ethics (96/100), Computer System Design and Application (96/100)

## PUBLICATIONS

**2025 [M.1]** Anonymous. (Co-first author) *PoeticVR: Supporting Intercultural Learning through Poetic Landscapes in Virtual Reality* (Under Review for CHI 2026)

## RESEARCH EXPERIENCE

### PoeticVR: Supporting Intercultural Learning through Poetic Landscapes in Virtual Reality

Main contributor and co-first author

March 2025 – Present

- Developed a multi-stage virtual reality system that reconstructs classical Chinese poetic landscapes to foster intercultural learning through aesthetic experience.
- Conducted a mixed-methods user study with non-native Chinese learners, demonstrating enhanced understanding of poetic imagery, emotional resonance, and intercultural empathy.
- Highlighted the potential of immersive technologies to bridge cultural distance, advancing literary appreciation and the cultivation of intercultural empathy.

### SketchKit: A Unified Python Library for Sketch Representation and Processing

Main contributor

June 2025 – Present

- Developed a unified data representation for sketches, enabling seamless integration and processing across diverse sketch datasets.
- Contributed to developing an intelligent RAG-based chatbot for sketch-related interaction and knowledge retrieval, allowing users to query and explore sketch knowledge through natural language.

### Time-varying Gaussian Splatting Reconstruction and Editing

Leader

March 2025 – October 2025

- Explored a time-varying Gaussian Splatting framework to reconstruct 3D scenes of historical sites by integrating single-view historical images with modern 3D models.
- Developed a prototype of a mask-free image-guided local editing method to enable intuitive and precise 3D scene modification.
- Conducted initial experiments showing the feasibility and challenges of extending Gaussian Splatting to time-varying historical scene reconstruction.

## Drone Tracking and Shooting Based on Human Pose Estimation

Leader

February 2023 – March 2024

*National Undergraduate Training Program for Innovation and Entrepreneurship*

- Built a real-time UAV tracking and filming system that interprets human posture to control takeoff, landing, and framing.
- Achieved stable system performance with accurate target tracking and smooth flight control.

## PROGRAM EXPERIENCE

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### Funding management system (Leader)

*Technology stack: HTML+CSS+Vue.js, PostgreSQL, SpringBoot, MyBatis, Swagger, Maven*

- Developed a web-based funding management system supporting user rights management, reimbursement application, approval, and fund allocation for both managers and professors.
- Designed and implemented data visualization, export, and user interface modules to enhance data accessibility and overall user experience.
- Conducted comprehensive testing and debugging to ensure system stability, functionality, and responsiveness across all modules.

**Assessment:** Focused on the user experience, precisely implemented all functions; Obtained a total score for the Software Engineering course.

### Online Chat Software (Independent)

*Technology stack: PostgreSQL, Java, JavaFX + Scene Builder*

- Implemented an online chat room in client-server mode using socket programming (UDP & TCP) and multithreading, enabling real-time communication among multiple clients.
- Designed a user-friendly graphical interface with JavaFX to provide intuitive access and interaction with chat room functionalities.

**Assessment:** Obtained 115/100 with 15 bonus scores for the Computer System Design and Applications course.

## SELECTED AWARDS AND HONORS

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- Second Prize in National Mathematical Modelling Competition for Students (NMMCS) (2022).
- National Encouragement Scholarship (2023)
- The second Class of the Merit Student Scholarship (2022-2023).
- Individual Scholarship “Practice Star” (2022-2023).
- Awarded the Exemplary Student Leader (2021-2022).
- Awarded the Exemplary Student Representative (2022-2023).

## TEACHING EXPERIENCE

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- CS203, Data Structure and Algorithm Analysis, SUSTech Fall 2023
- CS202, Computer Organization, SUSTech Spring 2023

## COMPUTER AND LANGUAGE SKILLS

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- Programming Languages: Java, Python, C/C++, C#, SQL, Verilog, JavaScript, GO, HTML/CSS
- Frameworks: PyTorch, Flask, Vue3, SpringBoot, MyBatis, Junit, JavaFX, Swing
- Developer Tools: Unity, Blender, Anaconda, Git, VS Code, PyCharm, IntelliJ IDEA, CLion, DataGrip, WebStorm, Vivado, Maven, Swagger