CHENG Tao

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Education

Zhejiang University 2023.09 — 2027.06
B.Eng. in Computer Science and Technology (expected June 2027) *Hangzhou, Zhejiang*

- **Cumulative GPA**: 4.76/5.00 | Rank 1 in major
- **Relevant Coursework**: Data Structures and Algorithm Analysis, Mathematical Modeling, Artificial Intelligence, Natural Language Processing, Computer Vision, Computer Graphics
- **Honors & Awards**:
  - National Scholarship
  - First-Class University Scholarship
  - NITORI International Scholarship

Publications

DiffWind: Physics-Informed Differentiable Modeling of Wind-Driven Object Dynamics **ICLR 2026**
5th Author *Poster*

PhysSkin: Real-Time and Generalizable Physics-Based Animation via Self-Supervised Neural Skinning **CVPR 2026**
2nd Author *Under Review*

Project Experience

SRTP: City-scale Multi-modal 3D Reconstruction & Weather Simulation 2025.04 — Present
Project Leader, Co-Author | National Level Research Grant *Hangzhou, Zhejiang*

- **Led** the development of a city-scale 3D reconstruction framework integrating multi-modal data; secured National Level funding (top-tier) for its technical novelty and scalability.
- **Contributed** to research on dynamic object modeling and scene reconstruction; co-authored two papers: submitted to **CVPR 2026 (2nd Author)** and accepted by **ICLR 2026 (5th Author)**.
- **Currently researching** robust physics-informed multi-modal 3D reconstruction.

CICSIC 2025 - "Zhi Lu": Autonomous Driving Edge-Case Simulator 2025.02 — 2025.08
Core Member (Documentation & Tech) | Provincial Bronze Medal *Hangzhou, Zhejiang*

- **Collaborated** with a cross-functional team to develop an autonomous driving simulation startup project.
- **Authored** the technical white paper and business plan, synthesizing complex system architectures into clear, professional documentation.

"Shenzhen Cup" National Collegiate Mathematical Modeling Challenge 2024.04 — 2024.08
Team Leader | Second Prize (3rd Place Nationally) *Shenzhen, Guangdong*

- **Developed** an optimization algorithm for sonic boom localization of rocket debris, enhancing positioning accuracy.
- **Led** a team of three to deliver high-quality technical reports, securing a 10,000 CNY prize for top-tier performance.

Campus Experience

HPC101: High-Performance Computing Workshop 2024.07 — 2024.08
Project-based Training *Hangzhou, Zhejiang*

- **Mastered** cluster configuration, parallel computing, and **CUDA programming**.
- **Optimized** CPUBench on **Kunpeng CPUs** (PAC 2024) via compiler tuning and C/Fortran profiling.

Data Factor Markets Workshop 2025.06 — 2025.07
Selected Coursework & Implementation *Hangzhou, Zhejiang*

- **Mastered** core concepts including Game Theory, MAB algorithms, and auction mechanism design for data assets.
- **Independently implemented** a database versioned pricing algorithm from the **QIRANA** (SIGMOD '17) paper, ensuring consistency and fairness in query pricing.

ZJU College of Computer Science and Technology Student Union 2024.10 — 2025.06
Staff, Technical Department *Hangzhou, Zhejiang*

- **Managed** the official service website, optimizing system stability and user experience for **500+** college members.