

# Tengfei Cheng

Guangxi University ◇ Computer Science and Technology

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## EDUCATION

### Guangxi University

09/2022 – 06/2026 (Expected)

Bachelor of Engineering - Major in Computer Science and Technology.

**Weighted Average Score:** 84.5/100.

**Core Courses:** Probability and Mathematical Statistics (98), Advanced Mathematics I (97), Principles of Artificial Intelligence (90), Object-Oriented Programming (91), Digital Circuits and Logic Design Practice (92), College English II (91), Data Structures Comprehensive Practice (90).

## RESEARCH EXPERIENCE

### Research at Guangxi University

Guangxi, China

*Undergraduate Researcher – Supervised by Prof. Yunxuan Dong.*

03/2024 – 06/2025

- Developed a deep learning framework, integrating wavelet-enhanced convolutional networks to capture multi-period patterns in tidal energy forecasting.
- Authored a paper as the **first author**, which is under review in the journal *Knowledge-Based Systems* (KBS).

### Research at the University of Liverpool

Liverpool, UK

*Research Intern – Supervised by Prof. Meng Fang.*

06/2025 – Present

- Developed a 3D Doom-based benchmark to evaluate instruction-following agents, revealing multimodal LLMs' deficiencies in spatial reasoning and interactive decision-making.
- Proposed GeoSafety-Bench, a benchmark quantifying multimodal LLMs' refusal robustness against synthetic images, uncovering critical geo-safety vulnerabilities and guiding safety-oriented model design.
- Developed an evaluation-guided post-training framework to build the multimodal agent with the VaseVQA dataset (31 773 images), improving reasoning and compositional generalization in pottery attribution.

## PAPERS

**Tengfei Cheng**, Yangdi Huang, Ling Xiao, and Yunxuan Dong<sup>†</sup>. A Tidal Current Speed Forecasting Model Based on Multi-Periodicity Learning. **Under review at *Knowledge-Based Systems***. arXiv:2410.09718.

**Tengfei Cheng**<sup>\*</sup>, Biao Wu<sup>\*</sup>, Ling Chen, and Meng Fang<sup>†</sup>. MDoom: A Benchmark for Evaluating Agentic Multimodal LLMs in Doom Environments. **Under review at *ACL Rolling Review***. Website: [link](#).

Biao Wu, **Tengfei Cheng**, Meng Fang, and Ling Chen<sup>†</sup>. Can Large Vision–Language Models Refuse Synthetic Images in Geo-localization? **Under review at *ICLR 2026***. OpenReview.

Jinchao Ge<sup>\*</sup>, **Tengfei Cheng**<sup>\*</sup>, Biao Wu<sup>\*</sup>, Zeyu Zhang<sup>\*</sup>, Shiya Huang, Judith Bishop, Gillian Shepherd, Meng Fang, Ling Chen, and Yang Zhao<sup>†</sup>. VaseVQA: Multimodal Agent and Benchmark for Ancient Greek Pottery. **Under review at *ACL Rolling Review***. arXiv:2509.17191.

<sup>\*</sup> Equal Contribution, <sup>†</sup> Corresponding Author.

## PROJECTS

### Enterprise Practical Training

10/2024 – 11/2024

*Leader*

- Led a team to develop a full-stack web application using the SpringBoot+Vue framework.

**National Undergraduate Training Program for Innovation and Entrepreneurship** 05/2024 – 05/2025  
*Team Member*

- Implemented gesture recognition using computer vision techniques.
- Secured provincial-level approval; received a *Good* rating at project completion.

**AWARDS**

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<b>Mathematical Contest in Modeling (MCM), USA</b>	Honorable Mention
<b>Chinese Collegiate Computing Competition</b>	First Prize
<b>China Undergraduate Mathematical Contest in Modeling</b>	Second Prize
<b>National English Contest for College Students</b>	Excellent Performance Award

**SKILLS**

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**Programming:** Python (PyTorch), C/C++, ~~La~~TeX, Bash.  
**Tools:** VS Code Remote-SSH, PyCharm, Git/GitHub, Microsoft Office.  
**Soft Skills:** Research Writing, Teamwork, Critical Thinking, Problem Definition.

**EXTRACURRICULAR ACTIVITIES**

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**Badminton**

- 5th place, Men’s Singles, “Lotus Cup” Badminton Competition, Guangxi University.
- 1st place, Team Event, School of Computer and Electronic Information Badminton Competition.
- Level-3 Certified Referee, Badminton Association of China.

**College English Course**

*Academic Representative*

- Facilitated teaching activities and supported classmates’ academic needs.