Tengfei Cheng

Guangxi University ◇ Computer Science and Technology
Tel: (+86) · 175 · 5708 · 6559 ◇ Email: 2207310514@st.gxu.edu.cn
Personal Website: https://cheng-tf.github.io/iamllm/

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†. A Tidal Current Speed Forecasting Model Based on Multi-Periodicity Learning. **Under review at *Knowledge-Based Systems***. arXiv:2410.09718.

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

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

* Equal Contribution, † 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

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

SKILLS

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

EXTRACURRICULAR ACTIVITIES

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.