

Cai Ziyi

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Education

Wuhan University | Computer Science and Technology (Hongyi Class / 弘毅 2025.09 – 2029.06 班), School of Computer Science | B.Eng. (in progress)

GPA: 3.97 / 4.00 (as of August 6, 2026).

Technical Skills

- **Languages:** Proficient in C++; working knowledge of Python.
- **Development:** Familiar with Qt; experience with FastAPI and SQLite.
- **Workflow:** Arch Linux + Zsh + Neovim + Git; experience in building and maintaining a personal website and servers (becharmkon.cn).

Projects

Shell Lab Test Suite Improvement | Test design / Computer Systems course lab

- **Identified a timing flaw in test case 28 of our university's Shell Lab under a specific scheduling order** (the CMU upstream has no such case), pointed out the problem and proposed an approach for writing a new test case.
- Designed and wrote a new test case targeting a typical implementation pitfall discovered by the teaching assistant. **Independently completed the design and implementation**, involving Unix sockets.

TinyBlog — Microblog-Style Social Platform (Collaborative) | Full-stack development / Summer short-semester practicum

- Developed TinyBlog, a microblog-style social platform with a complete frontend and backend: frontend based on **QML + C++**, backend based on **Python + FastAPI + SQLite**.
- Implemented core features including the public feed (“Square”), private chat, and group chat.

Extended Character Set Package for the Flypy Input Method | Open-source tool development

- Produced an extended character set package covering 17,000 characters, addressing the limitation of the original 6,000–7,000 characters and insufficient support for rare characters.
- Wrote scripts based on open-source character decomposition and pronunciation databases to automatically generate the extended code table.

screenplain AUR Package Maintenance | Open-source contribution / Arch 2026.05 – Present Linux community (current maintainer)

- Took over maintenance of the screenplain Arch User Repository (AUR) package, responsible for PKGBUILD maintenance and version updates.

Competitions & Certifications

- **National Third Prize** (individual) in the Group Programming Ladder Tournament (GPLT) (团体程序设计天梯赛) .
- Third Prize in the Central-South Division, China Collegiate Computing Contest (micro-lecture track) (中国大学生计算机设计大赛·微课赛道) .
- Bronze Award in the Mati Cup Programming Contest (码蹄杯) , Hubei Province.
- Second Prize in CSP-S, Hubei Province; Second Prize in the National High School Physics Competition (全国中学生物理竞赛) , Hubei Province (high school).
- CCF CSP Certification (CCF 计算机软件能力认证) : highest score **330**, cumulative top **2.5%**.

Personal Summary

- Optimistic, emotionally stable, excellent academic performance, strong self-discipline, and some team leadership experience.
- Able to read academic literature fluently in English.
- Continuous development of personal tools since elementary school, with long-standing project experience; keeps up with technological developments.
- Hobby in literary writing, with strong language expression skills.