I am a final-year software engineering student with a strong passion for trustworthy AI and human-centred innovation. I'm motivated by the belief that technology should be safe, reliable, and genuinely beneficial to people.

Through my studies and project work, I've collaborated with diverse teams and research groups, learning the importance of empathy, communication, and real user needs in both engineering and research. These experiences shaped my commitment to responsible and meaningful technology development.

I am a curious and dedicated learner who values continuous growth. I aim to use every opportunity to deepen my understanding of the world and contribute to building intelligent systems that serve communities ethically and effectively.

Bing Xia

Software Engineer

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EDUCATION

2024 – 2026 (Expected)

Bachelor of Engineering (Honours) – Software Engineering
University of Technology Sydney, Australia

- **GPA: 6.63 / 7.00 WAM: 86.3**
- **High distinction average (85%)**

2022 – 2026 (Expected)

Bachelor of Computer Science and Technology (Sino-Foreign Cooperative Program)
Northeastern University, China

- **GPA: 3.55 / 5.00 WAM: 85.5**

SOFTWARE DEVELOPMENT SKILLS

Backend Development:

Proficient in building web backends using Java Springboot and Python Django, including RESTful API design, authentication, database integration, and deployment workflows.

Frontend Development:

Experienced with Vue.js for developing responsive, component-based web interfaces; familiar with modern front-end tooling (Vue CLI / Vite, Axios, Router).

Full-stack Prototyping & Rapid Development:

Skilled in using AI-assisted coding tools to rapidly develop small to medium-scale applications, improve developer productivity, and accelerate prototyping cycles.

Data Engineering & Analytics:

Competent in Python-based data processing (Pandas, NumPy), data visualization, and exploratory analysis; able to support ML pipeline integration.

Machine Learning Development:

Capable of fine-tuning lightweight ML models, dataset preparation, feature engineering, and model evaluation for real-world applications.

DevOps & Tooling:

Comfortable with Git, GitHub workflows, Linux, Docker, virtual environments, automated testing, and reproducible development environments.

CORE SKILLS

Team Collaboration Skills – Demonstrated through effective coordination and contribution across multiple UTS subjects group projects, consistently recognised by peers for reliability and communication.

Leadership & Project Management – Proven by successfully organising sprint planning, delegating responsibilities, and ensuring timely delivery of team outcomes in course projects.

Research & Analytical Skills – Shown through conducting structured literature reviews, designing experiments, and presenting research progress in Honours supervisor meetings.

Cross-Cultural Communication Skills – Developed through academic experience in both Australia and China, enabling clear collaboration with peers from diverse cultural backgrounds.

Languages – Fluent in Chinese; English at a working level, suitable for workplace communication and everyday interaction.

RESEARCH EXPERIENCE

September 2024 – Present

Research Member, DL Sec. With Apps. Griffith & UTS Joint Research Group

Responsibilities:

- Participated in a research-intensive project on Trustworthy RLHF security, focusing on reward poisoning, backdoor attacks, and robustness evaluation.
- Conducted literature reviews, adversarial experiment design, and empirical evaluations.
- Regularly attended research seminars, cross-institution research group meetings, and contributed analytical summaries.
- Assisted with peer-review activities for ICICS 2025, improving understanding of research standards and rigorous methodology.
- Contributed to the drafting, internal review, and discussion of emerging research manuscripts related to LLM security and RLHF alignment vulnerabilities.
- Developed skills in RLHF pipelines, preference data curation, and reproducibility workflows.

REFEREES

Available upon request

Reflection 1: Principles of sustainability to create viable systems

Earlier this year, I ran a 500M-parameter language model on my personal computer for several days as part of a small research experiment. I assumed the model was lightweight enough to have minimal impact on my daily life. However, my landlord later approached me with concerns about an unexpected increase in electricity usage. This took me by surprise, as I had never imagined that running such a "small" model could noticeably raise energy consumption in a household setting. What began as a routine academic task quickly became an eye-opening moment about the hidden environmental and financial costs of AI.

My first reaction was shock and embarrassment. I felt uncomfortable that my experiment had unintentionally created costs for someone else. At the same time, I became uneasy about my own assumptions. I had believed that energy concerns were relevant only for large-scale AI training, not personal experimentation. This realization forced me to confront the fact that my understanding of AI`s resource demands was incomplete, and that I had underestimated how computational activities translate into real-world environmental impact.

Reflecting on this, I recognized a deeper issue in my own beliefs: I had always viewed technological development as inherently positive, without fully considering its sustainability implications. I assumed progress and innovation naturally aligned with responsible practices. Yet this experience revealed a gap between my intentions and my awareness of the broader consequences of my actions. It reminded me that sustainable thinking is not only for "big" systems—it must also inform small decisions made by individual learners and researchers.

I also came to recognize the difficulty posed by the invisibility of energy consumption in computational work. Because digital tasks feel abstract, it is easy to ignore the physical resources they consume. This mirrors a broader challenge in the AI community, where performance and capability often overshadow sustainability considerations. Research increasingly shows that both training and inference have meaningful carbon footprints, making responsible energy use an ethical and engineering concern.

From this experience, I learned to treat sustainability as an integral part of system viability. Going forward, I plan to be more deliberate in evaluating energy use, choosing efficient models, monitoring power consumption, and being transparent with those affected by my work. This incident has reshaped my awareness and strengthened my commitment to integrating sustainability into my future research and engineering practice.

Reflection 2: Professional Practice within intercultural and global contexts.

As an international student in Australia, I have gradually developed an understanding of the challenges many students face when seeking IT internships. Although I personally pursued research opportunities rather than industry roles, my exploration of internship listings and observations of my peers` experiences revealed consistent obstacles. Many positions required local experience, strong workplace communication skills, and familiarity with Australian professional norms—expectations that are difficult to meet for students who have only studied in Australia for one or two years. These insights made me reflect on the experience of navigating professional development within intercultural and global contexts.

My emotional response was mixed. I felt empathy for my peers who struggled despite strong technical ability, and frustration at the structural barriers that seemed unrelated to competence. I also felt a degree of uncertainty about how well I would adapt if I pursued similar opportunities. These reactions pushed me to think more deeply about how cultural and linguistic factors shape not only access to opportunities but also one`s sense of belonging within a profession.

Through this reflection, I recognized that I previously underestimated the social and cultural dimensions of engineering practice. I used to believe that technical skill and diligence were the primary determinants of success. However, I now understand that professional practice is embedded in communication norms, cultural expectations, and implicit workplace behaviors. For many international students, limited time in the host country makes it difficult to fully develop these non-technical competencies.

The difficulties are multifaceted. Language proficiency involves more than vocabulary—it requires confidence, fluency in informal communication, and the ability to engage spontaneously in discussions. Cultural differences also play a role: while Australian workplaces value direct communication and self-promotion, many East Asian students are taught modesty and restraint, which may unintentionally create disadvantages. These mismatches make it clear why international students often feel unprepared, even when technically capable.

This issue reflects a global pattern in which international mobility in education does not always align with local labor market expectations. Understanding this has encouraged me to adopt a more proactive and adaptive mindset. I plan to strengthen my communication skills, seek more intercultural teamwork experiences, and better understand local professional expectations. At the same time, I recognize that returning home for internships can also be a strategic and culturally comfortable choice. Ultimately, this reflection has helped me acknowledge both the challenges and the opportunities of being part of a global learning community, and it has strengthened my intention to navigate intercultural professional environments with awareness, flexibility, and resilience.