Zijun Zhang

- Phone - Portfolio - Email - Linkedin - Github

EDUCATION

The University of Melbourne — **Melbourne, Victoria, Australia**
M.S. in Computer Science (WAM: H1) — *Mar 2024 - Dec 2025*

The University of Melbourne — **Melbourne, Victoria, Australia**
B.S. in Computing and Software Systems (WAM: H2A) — *Mar 2021 - Dec 2023*

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, Java, Go, Solidity, R
Full-Stack Development: React, HTML5, CSS3, Node.js, Express.js, RESTful APIs
Machine Learning & LLMs: PyTorch, Scikit-learn, Hugging Face Transformers, Prompt Engineering
Cloud Computing & DevOps: AWS, Docker, Kubernetes, CI/CD pipelines
Data Engineering & Analysis: MongoDB, MySQL, Redis, ETL Processes, Data Modeling
Tools & Methodologies: Git, Jira, Confluence, Agile, Unit Testing

WORK EXPERIENCE

Software Engineer intern
Industrial and Commercial Bank of China, Melbourne, Australia — *Dec 2023 - Feb 2024*

- Optimized internal data processing by refining SQL database queries and Redis caching, achieving a 20% reduction in transaction processing time and significantly improving system scalability.
- Redesigned the user interface with intuitive form design and real-time validation, which reduced error rates by 15% and enhanced user experience.
- Collaborated closely with a cross-functional team, demonstrating effective communication and teamwork by clearly articulating technical concepts during integration of new service modules, ensuring timely delivery.

Data Engineering and Testing Intern
Alibaba, Yunnan, China — *Dec 2022 - Feb 2023*

- Applied critical analytical thinking to optimize supply chain data, developing a deep-learning model that significantly improved operational efficiency and reduced inventory costs by 10%.
- Conducted comprehensive code reviews using CI/CD tools across multiple analytics projects, identifying and resolving over 30 critical issues to enhance overall code quality and foster team collaboration.
- Developed and executed unit tests for data pipeline scripts, achieving 98% test coverage and eliminating processing errors, thereby ensuring the accuracy and reliability of analytical insights.

PROJECTS

- **Interview Copilot**, a web-based application that enhances interview performance through real-time speech-to-text transcription and AI-powered assistance. Built with React, integrating Deepgram and OpenAI's GPT-4 APIs. Features low-latency audio streaming via WebSocket, advanced text processing, and a responsive, theme-able interface with secure API key storage. GitHub
- **Prompt Optimizer**, a web application that refines user prompts for LLMs (GPT-4, Claude 3.5). Developed with Next.js 14 and Tailwind CSS, offering real-time prompt optimization by integrating OpenAI and Anthropic APIs, secure API key storage, and an intuitive interface with dark mode support. GitHub
- **Melbourne Urban Mobility Insights Dashboard**, an interactive R Shiny application analyzing Melbourne's pedestrian dynamics, public transport patterns, and road safety metrics. Implements custom CSS with libraries like shinyjs and shinydashboard for dynamic navigation and detailed modal dialogs. GitHub
- **Distributed Collaborative Whiteboard**, a Java-based program enabling real-time, multi-user drawing through a robust client-server architecture. Developed with Java Swing, it supports diverse drawing tools, text insertion, comprehensive file operations, and custom command handling for user management and canvas synchronization. Github

RESEARCH

- **Unlearning Paradox: Exposing Hidden Factual Knowledge Leakage in Large Language Models**, currently investigating whether unlearning techniques applied to LLMs inadvertently increase the risk of factual knowledge leakage. Evaluating how partial data removal intended for compliance may destabilize remaining factual representations, making them more vulnerable to extraction and membership inference attacks.

EXTRACURRICULAR ACTIVITIES

- **Committee member** in Unimelb Blockchain Association - *Feb 2025 - Present*
- **Executive member** in Computing and Information Systems Students Association - *Feb 2022 - Feb 2023*