

Yuxin Ren

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EDUCATION

The University of Melbourne

Feb 2023 - Dec 2025

Software Engineering - Master's Degree

Major Courses: Object-Oriented Software Development, Computer System, Data Structures and Algorithms, Distributed Systems, Database Systems, Software Architecture Design, Software Testing, etc.

Xi'an Jiaotong University

Sep 2018 - Jul 2022

Engineering Management - Bachelor's Degree

Major Courses: Project Management, Engineering Mathematics, Linear Algebra, Databases Fundamental, Probability Theory, etc.

SKILLS LIST

Proficient in: Object-Oriented Programming (Java), computer networks core protocols (IP, UDP/TCP, HTTP), design patterns (Singleton, Factory, Strategy, etc.), Git, Maven, JMeter, Scrum (Agile-Scrum), Docker

Intermediate: database systems (MySQL, PostgreSQL), lock mechanisms (synchronized), thread pools, distributed system, React, ReactJS, Node.js, JavaScript, JSP, JFormDesigner

Familiar with: Spring Cloud, Spring Security, Micro-services architecture, concurrent containers (HashMap, CopyOnWriteArrayList), Redis, Nacos

PROJECT EXPERIENCE

Canvas Smart Education Plugin - Quality Assurance (QA) Lead

Jul 2024 - Nov 2024

An AI-powered plugin for Canvas LMS designed to enhance student learning and simplify course management for instructors. Key features include a smart chatbot for instant homework assistance, adaptive quizzes with dynamic difficulty adjustment, personalized learning progress tracking, and tools for managing course materials and analyzing student inquiries.

- Led the QA strategy by designing and implementing a rigorous testing framework encompassing unit, integration, and user acceptance tests, ensuring high-quality deliverables under tight deadlines.
- Designed a scalable QA framework to ensure the delivery of key features.
- Bridged cultural and technical gaps within the team, ensuring effective communication and alignment across diverse stakeholders.
- Utilized agile methodologies to manage testing iterations, detect and resolve defects, and maintain high standards of functionality and usability.
- The project achieved all functional goals and received great compliment from client, awarded an H1 (First-Class Honours), ranking among the Top-Performing Projects.

Club-Event Management Web Application - Team Leader + Full-Stack Development Lead

Aug 2024 - Oct 2024

A system that allowed club administrators to create and modify events, manage member permissions, and submit funding requests to faculty, while enabling students to RSVP for events and faculty administrators to review funding applications. Built using Java Servlets, JSP, and PostgreSQL, deploy using Docker, the project ensured efficient concurrency handling and scalable architecture. Delivered a fully functional platform that streamlined event management and improved user experience for both students and faculty.

- Led the development of a web application enabling students to manage club memberships and RSVP for events. Designed and implemented core backend functionality using Java Servlets, focusing on Java fundamentals and ensuring reliability without relying on major frameworks.
- Integrated frontend and backend seamlessly with JSP and JavaScript, delivering a dynamic and interactive user experience.
- Adopted a scalable three-layer architecture (Controller-Service-Mapper) based on the MVC pattern to ensure maintainability and future extensibility.
- Developed a concurrency control mechanism using optimistic locks for low-concurrency scenarios and pessimistic locks for high-concurrency situations, maintaining data integrity and performance.
- Received high praise from instructor and was recognized as the top 5 model projects.

VOLUNTEERING & EXTRA-CURRICULAR ACTIVITY

IEEE WIE AG University of Melbourne Student Branch

Jul 2024 - Present

Vice-Chair

- Collaborate with Engineers Australia and co-organized the "Unlock Your Engineering Future: Migration Skill Assessment & Getting Chartered Workshop". Achieved remarkable engagement with all 60 tickets booked within a single day and over 90% attendance. Post-event feedback revealed that 98% of participants found the workshop beneficial to their career development.
- Organized the "Building Resilient Careers: Navigating the Tech Industry" Panel Discussion featuring four esteemed industry leaders: Canva's Principal ML Engineer, Telstra's Network Senior Engineer, CSL's Global Head of Data Science, and NAB's Senior Manager. Topics included workplace culture, career growth, leadership, and work-life balance. Attracted 58 / 70 (booked) attendees. Received positive feedbacks that students found the panel discussion helpful a good opportunity to engage directly with industry experts, gain actionable insights, and develop strategies for building resilient careers in tech.
- Individually recognised the volunteering contributions with the "Outstanding Event/Initiative Award 2024", while the branch was honored with the "Outstanding Student Branch WIE AG Award 2024" by IEEE Victoria.

SKILLS, CERTIFICATIONS & OTHERS

- Skills:** Microsoft Office Suite, Trello, Slack, Jira, Canva, OneDrive, Google Drive, LaTeX
- Interests:** Basketball, Fitness, Volunteering, Photography... and Dog-walking
- Languages:** English, Mandarin