Yuxin Ren

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EDUCATION

The University of Melbourne - Software Engineering - Master's Degree   Feb 2023 - Dec 2025
Major Courses: Object-Oriented Software Development, Computer System, Distributed Systems, Database Systems, Testing, etc.
Xi'an Jiaotong University - Engineering Management - Bachelor's Degree   Sep 2018 - Jul 2022
Major Courses: Project Management, Engineering Mathematics, Linear Algebra, Databases Fundamental, Probability Theory, etc.

SKILLS LIST

Proficiant in: Object-Oriented Programming (Java), computer networks core protocols (IP, UDP/TCP, HTTP), design patterns (Singleton, Factory, Strategy, etc.), Git, Maven, JMeter, Agile, Docker
Intermediate: database systems (MySQL, PostgreSQL), python, lock mechanisms (synchronized), thread pools, React, ReactJS, Node.js, JavaScript, JSP, JFormDesigner, Swagger, Springfox
Familiar with: Spring Cloud, Spring Security, Micro-services architecture, concurrent containers (HashMap, CopyOnWriteArrayList), Redis, Nacos, nginx

PROJECT EXPERIENCE

[Club-Event Management Web Application] - Team Leader + Full-Stack Development Lead   Aug 2024 - Oct 2024
- Developed a web application for managing club memberships and RSVPs, leveraging Java Servlets to implement robust backend functionality with a focus on Java fundamentals. Used JSP and JavaScript to seamlessly integrate the frontend and backend, delivering a dynamic user experience. Conducted performance testing with JMeter to optimize system efficiency under concurrent access, ensuring reliability and responsiveness.
- Implemented a scalable (Controller-Service-Mapper) architecture based on the MVC pattern to enhance maintainability and future extensibility. Designed a concurrency control mechanism using optimistic and pessimistic locks tailored to different concurrency scenarios, ensuring data integrity and system performance.
- Led a team in developing a high-quality web application, effective collaboration, and strong time management to meet tight deadlines. Coordinated frontend and backend integration, resolved challenges efficiently, and ensured the project's success. Received high praise from the instructor, with the project recognized as one of the top 5 models for its technical excellence and teamwork.

[Canvas Smart Education Plugin] - Team Leader   Jul 2024 - Nov 2024
- Developed an AI-powered plugin for Canvas LMS to enhance student learning and streamline course management for instructors. The plugin featured 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, covering unit, integration, and user acceptance testing to ensure the delivery of high-quality features. Built a scalable QA framework to support core functionalities and utilized agile methodologies to manage testing iterations, detect and resolve defects, and maintain high standards of functionality and usability.
- Bridged cultural and technical gaps within the team, fostering clear communication and alignment across diverse stakeholders. Effectively managed tight deadlines through strategic planning and prioritization, ensuring timely delivery of key milestones. The project met all functional goals, received client acclaim, and was awarded First-Class Honours (H1), ranking among the top-performing projects.

[OrderDash - Food Ordering & Delivery Platform] - Team Leader + Backend Development Lead
- Led the technical stack selection during the project initiation state, designed the product prototype based on existing food delivery software in the market. Created and dynamically adjust the API interface documentation and database schema throughout the agile development process. Successfully designed a food ordering and delivery software system, divided into Manager and User interfaces with a frontend-backend separated architecture.
- Applied modern Java frameworks such as Spring Boot and Spring MVC for the application layer, implemented JWT tokens for authentication, and utilized AWS for cloud storage of images like menu items. Used Knife4j, an enhanced version of Swagger, to design, build, and test RESTful APIs. Leveraged MyBatis to simplify interactions between Java and MySQL at the data layer. Integrated Redis for caching, reducing average query times from 127ms to 23ms.
- Ensured backend security by implementing Nginx for reverse proxy and employing the MD5 algorithm for password encryption in the database.
- Participated in frontend design and partially coded functionalities. The admin panel was developed using Node.js as the runtime environment, while the user application was built as a WeChat mini-program, both primarily coded in JavaScript.

VOLUNTEERING & EXTRA-CURRICULAR ACTIVITY

[IEEE WIE AG University of Melbourne Student Branch] - Vice-Chair   Jul 2024 - Present
- Collaborate with Engineers Australia and co-organized the "Unlock Your Engineering Future: Migration Skill Assessment & Getting Chartered Workshop". Achieved remarkable engagement with 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, featuring four distinguished leaders from Canva, Telstra, CSL, and NAB. The event attracted more than 85% attendees, facilitating discussions on workplace culture, career growth, leadership, and work-life balance. Received positive feedback for creating a valuable platform for students to engage with industry experts, gain actionable insights, and develop career resilience strategies.
- 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, Jmeter
- **Languages:** English, Mandarin