Daisy Pei

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Professional Summary

Result-driven Full Stack & AI Engineer (MSc AI, BSc CS). Experienced in AI-powered applications, automation testing, and scalable web/mobile solutions. Skilled in LLMs and RAG to streamline workflows and improve user experience, with strong Agile/DevOps and cross-functional collaboration expertise.

Experience

Automation Test Analyst

Jul 2025 - Present

Australian Red Cross Lifeblood

Melbourne, Australia

- Developed and maintained automated regression and end-to-end test suites using **Playwright**, improving defect detection rates and increasing test coverage across donor-facing and internal applications.
- Integrated automated tests into the **CI/CD pipeline** and conducted root-cause analysis for failures, implementing optimisations that improved test reliability, execution speed, and release quality.
- Developed a **Donor Eligibility Checker (Local RAG + LLM)** enabling natural language queries with redaction and guardrails, improving efficiency over legacy system.
- Collaborated with developers, product owners, and business analysts to analyse requirements, design test cases, and ensure smooth delivery in an **Agile DevOps** environment.
- Led and mentored Graduate Test Analysts, providing guidance on automation best practices, code reviews, and troubleshooting to accelerate onboarding and enhance team output.

Graduate Software Engineer Rotation

Jan 2024 – Jun 2025

Australian Red Cross Lifeblood

Melbourne, Australia

- Rotated across DevOps, automation testing, mobile development, and independent product delivery, creating solutions for donor-facing and internal applications.
- **DevOps Engineer:** Delivered internal **Node.js/React** applications and an **AI PDF Q&A chatbot (RAG + OpenAI)** that allows users to upload PDF documents and ask natural language questions, cutting document search time by 70% and improving knowledge accessibility across the organisation.
- **Automation Tester:** Built **Playwright** regression suites integrated with **CI/CD**, boosting defect detection, increasing coverage, and reducing post-release issues.
- **Mobile Developer:** Delivered **React Native** features for the donor app, improving API integration and optimising UI performance, which reduced load time by 25% and enhanced donor experience.
- **Independent Product Development:** Built a **PowerApps** Agile Estimation tool for anonymous story point voting, removing bias and improving sprint planning efficiency.

CIS Academic Tutor

Jul 2023 – Present

University of Melbourne (Part-Time)

Melbourne. Australia

• Supervised student teams in capstone IT Project (COMP30022), providing technical guidance, code review, and delivering workshops on Agile Development, DevOps Practices, and Code Quality & Testing Standards.

Education

Nanyang Technological University

Master of Science in Artificial Intelligence (GPA: 4.4/5.0)

Singapore Aug 2022 – Jan 2024

Nanyang Technological University

Singapore

Exchange Program at the School of Computer Science and Engineering

Jan 2022 - May 2022

University of Melbourne

Melbourne, Australia

Bachelor of Science in Computing and Software Systems (First Class Honours, WAM 83.6)

Mar 2020 – Jul 2022

Skills

Programming & Libraries: Python, JavaScript, TypeScript, React, React Native, Node.js, Playwright, PyTorch, Scikit-Learn **AI/ML & Deployment:** Machine Learning, Deep Learning, RAG, LLM Integration, Prompt Engineering, Vector Databases, Model Fine-tuning, FastAPI, Gradio, AWS Sagemaker, API Integration (REST, WebSockets) **Tools & Platforms:** Git, Power Platform, LaTeX, CI/CD, Agile/DevOps, MongoDB, MySQL

Awards and Certificates

Awards: Unimelb - Melbourne Plus People Leadership (2023); Unimelb - Global Mobility Scholarship (2022); Unimelb - Melbourne International Scholarship (2021);

Certifications: AWS AI Practitioner (AIF-C01);