

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 <i>Australian Red Cross Lifeblood</i>	Jul 2025 – Present <i>Melbourne, Australia</i>
<ul style="list-style-type: none">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.Designed and developed a Donor Eligibility Checker (Local RAG + LangGraph) with redaction and guardrails (regex PII removal, keyword red-flags, citation-only answers), improving efficiency over the 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 on-boarding and enhance team output.	
Graduate Software Engineer Rotation <i>Australian Red Cross Lifeblood</i>	Jan 2024 – Jun 2025 <i>Melbourne, Australia</i>
<ul style="list-style-type: none">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 (LangChain + React/Python) 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.Org-wide Product: Built and launched a Power Apps Agile Estimation tool for anonymous, unbiased story-point voting (planning poker), improving sprint-planning efficiency and administer the Power Platform Center of Excellence environment (governance, DLP policies, ALM).	
CIS Academic Tutor <i>University of Melbourne (Part-Time)</i>	Jul 2023 – Present <i>Melbourne, Australia</i>
<ul style="list-style-type: none">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 <i>Master of Science in Artificial Intelligence (GPA: 4.4/5.0)</i> <i>Bachelor of Computer Engineering - Semester Exchange Program</i>	Singapore Aug 2022 – Jan 2024 Jan 2022 – May 2022
University of Melbourne <i>Bachelor of Science in Computing and Software Systems (First Class Honours, WAM 83.6)</i>	Melbourne, Australia Mar 2020 – Jul 2022

Skills

Programming & Libraries: Python, JavaScript, TypeScript, React, React Native, Node.js, Playwright, PyTorch, Scikit-Learn
AI/ML & Deployment: Machine Learning, RAG, LLM Integration, LangChain, LangGraph, CrewAI, 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 Certified AI Practitioner (AIF-C01); AWS Certified Machine Learning Engineer Associate (MLA-C01)