

Shirley Xiao

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A diligent and adaptable software engineer with six years of industry experience, implementing interactive frontend applications and full-stack features for both regulated embedded systems and public-facing web platforms. Collaborates effectively with cross-functional teams to consistently deliver high-quality results.

WORK EXPERIENCE

Software Engineer

CSIRO

Jul. 2024 – Present

Melbourne, AU

- Contributed to publicly available web applications supporting state and national government climate data initiatives, including Victoria's Future Climate Tool CMIP6, the Australian Climate Service's Hazards Portal, and a pre-release 0-to-1 climate risk MVP
- Implemented full-stack features, including data ingestion pipelines, backend services, APIs, database schema updates, automated testing (unit, integration, E2E), and shared validation packages to reduce code duplication
- Implemented complex, interactive data visualizations and workflows, including full UI overhauls, modular components, small screen responsiveness, climate data map displays, selection presets, form validation, CSV handling, and usage analytics
- Worked on CI/CD automation, including scripts and actions for data validation and deployment tasks
- Collaborated closely with designers, scientists, engineers, project managers, and external clients, providing feedback on specifications, reviewing wireframes, clarifying requirements, defining API contracts, and delivering maintainable, reliable software solutions
- Skills: **Angular, TypeScript, SCSS, Rest APIs, GraphQL, TypeORM, Express, Python, FastAPI, Jest, Supertest, Playwright, Git, GitHub Actions**

Product Development Engineer – Software L2

Feb. 2022 – Jun. 2024

Product Development Engineer – Software L1

Feb. 2020 – Feb. 2022

Fisher & Paykel Healthcare

Auckland, NZ

- Implemented and maintained core UI screens on a regulated medical device, including alarm, home, disinfection, and software update workflows, ensuring correct and reliable behaviour
- Worked collaboratively in a team on a web-based simulator and training application, recreating various device workflows, adding an alarm demo feature, to support clinician training
- Developed automation scripts for CI/CD pipelines and device workflow triggering, streamlining repetitive tasks and reducing manual effort
- Owned features across the full software development lifecycle, from requirements through implementation, unit testing, formal verification, and documentation
- Led cross-team frontend catchups and served as primary software liaison to process teams, ensuring alignment and smooth deployment of software updates
- Mentored graduate engineers through peer programming and knowledge-sharing sessions, to support onboarding
- Supported five production releases by maintaining design and control documentation; including requirement specifications, risk management files, test protocols/reports, traceability matrices, and anomaly registers; following ISO 13485 and IEC 62304, and aligned with IEC 60601 safety standards.
- Skills: **C/C++, Python, Ruby, React, TypeScript, EmotionJS, Jest, Firebase, Git, GitLab CI/CD**

EDUCATION

The University of Auckland

Nov. 2019

Bachelor of Engineering (Hons), Mechatronics Engineering

Auckland, NZ

- First Class Honors - Cumulative GPA: 8.6/9.0
- Faculty of Engineering Dean's Honors List - 2016, 2019

INTERESTS

Voxel Art, Crochet, Reading, Baldur's Gate 3