Cynthia Chen

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SUMMARY

Results-driven Software Developer with 4+ years of experience in data analysis and hands-on full-stack development. Proficient in Python (Flask, Django, FastAPI), JavaScript, C#, SQL, and Docker. Built and deployed LLM-powered chatbots using LangChain, RAG, and Gemini APIs. Delivered scalable web apps, document systems, and real-time IoT dashboards. Proven ability to ship robust solutions in fast-paced, agile teams.

TECHNICAL SKILLS

- Languages: Python, C#, JavaScript, SQL, C++, R, Shell
- Frameworks: FastAPI, Flask, Django, Gradio
- AI/NLP: Gemini, LangChain, Sentence Transformer, FAISS
- Web & IoT: HTML, CSS, JavaScript, Socket.IO, MQTT, WebGL
- Cloud & DevOps: Docker, AWS EC2/S3
- Databases: PostgreSQL, MySQL, SQLite
- Tools: Git, GitHub, Agile, Automated Testing

RELEVANT EXPERIENCE

Software Developer (Intern → Parttime) |Perth, Australia   Dec 2024 - Present

The Kids Research Institute Australia - Global Disease Modelling team

Tech Stack: Python, FastAPI, LangChain, Gradio, Docker, FAISS, Gemini 1.5/2.0, Sentence Transformer, XML

- Independently developed the OpenMalaria AI chatbot from scratch to production.
- Built core RAG logic and embedded domain-specific literature for contextual answers.
- Implemented XML validation for malaria model inputs.
- Added user management, logging, and server deployment features.
- Continuously improved the system based on user testing and researcher feedback.
- Maintained stable deployment on a remote Linux server.

PROJECTS

Unity game - Life Simulation Monopoly | Solo Developer | Perth, Australia | Feb 2025 – Mar 2025

Tech Stack: Unity, 2D Game Design, C#, Gemini 2.0

- Built an AI-powered life simulation game with turn-based movement and dynamic story events
- Integrated Google Gemini 2.0 to generate personalized life paths based on player choices
- Deployed via WebGL for seamless browser play without installation

Smart Plant Caring System | Team Leader (4) | Perth, Australia | Feb 2025 – Jun 2025

Tech Stack: Python, C++, Flask, JavaScript, HTML, CSS, Socket.IO, MQTT, SQLite, ESP32

- Led the end-to-end development of an IoT-based smart plant system, integrating C++ firmware on ESP32 microcontrollers with a Flask backend and SQLite database.
- Implemented MQTT protocols for real-time communication between sensors and server, enabling live control of lighting and watering via REST APIs and WebSockets.
- Built a responsive web interface using HTML/CSS/JavaScript to display real-time sensor data, 7-day trends, and photo logs, with interactive manual controls.

Community Forum: No Worries, Neighbour | Team Leader (4) | Perth, Australia | Mar 2024 – Jun 2024

Tech Stack: HTML, CSS, JavaScript, Python, Flask, Github

- Built a full-stack community forum with event posts, second-hand listings, Q&A, and user accounts
- Added features including search, reply, user management, and a points-based incentive system
- Led team collaboration using GitHub Issues and agile workflows

Board Game Data CLI Toolkit | Uni Project | Perth, Australia | Apr 2025 – May 2025

Tech Stack: Bash, gawk, Unix tools (cut, tr, grep, etc.)

- Built a command-line toolkit to inspect, clean, and analyze board game metadata
- Implemented a custom parser and data normalizer handling ID imputation, encoding cleanup, and format conversion
- Used gawk to compute popularity statistics and Pearson correlation coefficients

Document Management System | Uni Project | Perth, Australia | Aug 2024 – Oct 2024

Tech Stack: Django, PostgreSQL, HTML/CSS/JS, Docker, Git

- Built a command-line toolkit to inspect, clean, and analyze board game metadata
- Implemented a custom parser and data normalizer handling ID imputation, encoding cleanup, and format conversion
- Used gawk to compute popularity statistics and Pearson correlation coefficients

GDM Website| Full Stack Developer | Perth, Australia | May 2025 – Jul 2025

Tech Stack: Next.js, Tailwind CSS, GitHub, Linux Server

- Designed and developed a responsive public-facing website for the Global Disease Modelling group at Perth Children's Hospital
- Built dynamic components for researcher profiles, project cards, and publication listings using React and Tailwind
- Structured the site for scalability and ease of maintenance, supporting ongoing research updates and team expansion
- Deployed the site on a Linux-based server and collaborated closely with researchers to ensure accurate content and representation

SOFT SKILLS

- Communicate effectively in both English (PTE 7.5) and Mandarin.
- Excellent organizational skills, able to effectively multitask and prioritize tasks.
- Quick to learn new software and technologies, with the ability to adapt to different IT environments and challenges.

EDUCATION

Master of Information Technology   **July 2023 – July 2025**

The University of Western Australia

REFEREES

Available upon request.