Chan Meng

Web & Mobile Full-Stack Software Engineer



INTRODUCTION

Full-stack developer with specialized expertise in women's health technology, combining React/Next.js, TypeScript, Python, and cloud infrastructure to build impactful web applications. Currently driving technical innovation as CTO at FreePeriod and AI/ML Infrastructure Engineer at Sanicle, delivering enterprise-grade solutions for workplace health management with AI integration.

Distinguished speaker at the UN CSW 69 Beyond Beijing 30 Conference, showcasing how AI technology effectively addresses workplace gender inequities. Passionate mentor dedicated to supporting women in STEM through the Forward with Her program, with proven impact across a diverse network of mentees from prestigious universities. Master's graduate with Distinction from Lincoln University, bringing academic excellence and practical implementation skills to every project.

Combines technical leadership with minimalist design principles to create elegant, efficient solutions while fostering inclusive development environments that empower teams to deliver exceptional results.

EXPERIENCE

Sanicle, Remote — Senior AI/ML Infrastructure Engineer

Mar 2025 - PRESENT

Led the development of enterprise-grade women's health platforms for workplace wellness, integrating advanced AI capabilities while maintaining strict privacy standards. Collaborated with C-suite executives to translate business requirements into technical solutions.

- Architected Sanicle Cloud, a comprehensive women's health platform powered by IBM watsonx AI, built with Next.js 15, React 19, and Tailwind CSS to deliver personalized health insights to corporate clients
- Engineered Sanicle-Al, a multi-tenant health management system with role-based dashboards for employees and HR departments, featuring advanced health tracking and analytics capabilities
- Implemented dual AI integration leveraging both **Gemini AI** and **watsonx AI** to create an intelligent health assistant providing personalized guidance while ensuring complete data confidentiality
- Designed privacy-first architecture with end-to-end encryption, GDPR-compliant data handling, and a scalable PostgreSQL database using Drizzle ORM to maintain strict data isolation between organizational tenants

FreePeriod, Remote — Full-Stack Developer & CTO

Nov 2024 - PRESENT

Leading software development for a HKUST(GZ)-incubated startup that builds smart

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EDUCATION

Master of Applied Computing -

Lincoln University

Nov 2023 - Dec 2024 | New Zealand | Dean's List Honoree (**top 5%**) | with Distinction (**GPA above 80%**)

Bachelor of Geography Science -

Jiangsu Normal University
Sep 2012 - Jun 2016 | China | with
Distinction (**GPA above 80%**)

SKILLS

PROGRAMMING LANGUAGES

TypeScript • JavaScript • Python • Java • Go • HTML • CSS • SQL • R

FRONTEND

React • Next.js • Angular • Tailwind CSS • Redux • Framer Motion • Three.js

BACKEND

Node.js • Express • REST API • Flask • FastAPI • WebSocket • Authentication • Real-time Data Processing

DATABASES

PostgreSQL • MongoDB • MySQL • SQLite • Database Design • Query Optimization

ADDITIONAL EXPERTISE

System Architecture • API Design •
Performance Optimization • Technical
Documentation • Test-Driven
Development • Agile Methodologies

ACHIEVEMENTS & COMMUNITIES

• United Nations CSW 69 Speaker —

vending systems for feminine hygiene products in public spaces. Primary responsibility includes designing and developing the company website and database infrastructure.

- Architected full-stack solution using Next.js 14 with App Router for company website
- Built responsive interface using React 18, Tailwind CSS, and shadon/ui
- Created custom i18n solution for English-Chinese localization
- Implemented location services with Google Maps API and analytics dashboard using Recharts

ByteDance, Remote — Backend Developer

Nov 2024 - Mar 2025

Contributed to TikTok's microservices-based ecommerce platform development, integrating AI recommendations within a 7-member team guided by 22 senior backend engineers.

- Developed core microservices using Spring Cloud for user authentication, product management, and order processing
- Implemented database architecture using MySQL with Redis caching and RabbitMQ message queue optimization
- Integrated **Qwen LLM** API for intelligent product recommendations and search functionality
- Built responsive UI components with Vue3 and Element Plus

CORDE, Christchurch — Mobile Application Developer

Jun 2024 - Nov 2024

Led frontend development and database architecture of offline-first mobile application for field maintenance operations in 5-member Agile team, contributing 60% of codebase and 98% of documentation.

- Designed **SQLite** database schema scaling to 18 tables for offline data management
- Implemented automated background sync and real-time status monitoring
- Integrated ArcGIS mapping services with GPS tracking
- Developed React Native mobile UI with dark/light themes and dynamic forms for field operations

RECENT PROJECTS / OPEN-SOURCE

<u>FriendScope</u> — Full-Stack Web Application

Independently developed a privacy-focused relationship assessment platform featuring comprehensive analysis and visualization tools, gaining significant user traction with consistently positive feedback.

<u>Google News MCP Server</u> — Model Context Protocol Integration

Pioneered an early MCP implementation enabling AI assistants to access real-time news. Successfully published to multiple MCP platforms and as an npm package, demonstrating proficiency with next-generation AI interaction protocols.

<u>Gradient SVG Generator</u> — Dynamic SVG Generation Suite

Developed an open-source platform for generating animated gradient SVGs through a web interface and API, garnering recognition from Reddit's r/lgbt community for its inclusive design templates.

<u>Tencent Meeting Video Downloader</u>

— Chrome Browser Extension

Developed a browser extension that automates video downloads from Tencent Meeting with URL detection and custom save options. Published on Chrome Web Store with positive ratings and zero data collection.

Beyond Beijing 30 Conference, New York, Mar 2025

- Outstanding Performer UN Women FemTech Hackathon, Mar 2025
- Most Popular Mentor Forward with Her Program, supported by UN Women, Feb 2025
- Excellence Award Winner —
 FemTech China Women's Health
 Technology Challenge, Dec 2024
- SS-Rank Deep Contributor Award for Sustained Code Contributions in GitHub 2024
- S-Rank Multilingual Developer GitHub Trophy 2024
- Founder TechRosie GitHub
 Organization, promoting diversity in tech

CERTIFICATIONS

CORE DEVELOPMENT

- Software Engineer HackerRank
- Frontend Developer (React) -HackerRank
- Problem Solving (Intermediate) -HackerRank

FRAMEWORKS & LANGUAGES

- JavaScript (Intermediate) HackerRank
- Node.js (Intermediate) HackerRank
- Angular (Intermediate) HackerRank
- Go (Intermediate) HackerRank
- Java Professional JetBrains

DATABASE & API

- SQL (Advanced) HackerRank
- Rest API (Intermediate) HackerRank
- Data Analysis Microsoft

DEVELOPMENT TOOLS & PRACTICES

- GitHub Professional GitHub
- Docker Professional Docker Foundation
- Ubuntu Linux Professional Canonical
- Agile Project Management Atlassian
- System Administration Microsoft
- Project Management Microsoft
- Cybersecurity Microsoft

REFERENCES

Professional references available upon request.

Explore 50+ additional open-source projects on my GitHub.