

CHAN MENG

AI/ML Infrastructure Engineer — Full-Stack Developer

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RESEARCH INTERESTS

Full-stack developer and AI/ML specialist with proven expertise in building enterprise-grade solutions using React, Next.js, TypeScript, Python, and AWS cloud infrastructure. Currently driving innovation as Senior AI/ML Infrastructure Engineer at Sanicle and Full Stack Developer at She Sharp, delivering scalable AI-powered applications for workplace health management and STEM education.

Distinguished UN CSW 69 speaker and AWS She Builds Mentorship Program 2025 mentee, showcasing continuous learning leadership. Host of 4 Spotify podcasts including "Decoding the Future" and "Future Turing", sharing insights on AI innovation. Active She Sharp Ambassador and passionate mentor supporting 800+ women through Forward with Her and AI Forum NZ programs.

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

EDUCATION

Master in Applied Computing, *Lincoln University* Nov 2023–Dec 2024
New Zealand

Dean's List Honoree (top 5%) — with Distinction (GPA above 80%)

Bachelor in Geography Science, *Jiangsu Normal University* Sep 2012–Jun 2016
China

with Distinction (GPA above 80%)

RESEARCH EXPERIENCE

Senior AI/ML Infrastructure Engineer, *Sanicle* Mar 2025–Present
Remote

- Led the development of two key products that helped Sanicle achieve IBM Silver Partner certification through close collaboration with the IBM team. Currently representing Sanicle in strategic discussions with Google to secure investment funding and startup resources.
- Designed and developed Sanicle's corporate website using Next.js 15 and React 19, integrating IBM Cloud watsonx AI as an interactive customer service assistant that engages visitors through conversational interface to better understand Sanicle's offerings
- Engineered Sanicle.Cloud, a comprehensive SaaS platform for workplace women's health management (menstrual and menopause wellness), featuring role-based dashboards for employees and HR departments with predictive absenteeism alerts

- Implemented IBM Cloud watsonx AI within the Sanicle.Cloud employee dashboard, enabling AI-powered health consultations and automated leave requests, significantly enhancing user experience for corporate clients
- Built secure multi-tenant architecture with end-to-end encryption and GDPR compliance using PostgreSQL and Drizzle ORM, ensuring complete data isolation between organizations while maintaining system scalability

Full-Stack Developer & CTO, *FreePeriod*
Remote

Nov 2024–Jun 2025

- Leading software development for a HKUST(GZ)-incubated startup that builds smart 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 shadcn/ui
- Created custom i18n solution for English-Chinese localization
- Implemented location services with Google Maps API and analytics dashboard using Recharts

Backend Developer, *ByteDance*
Remote

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

Mobile Application Developer, *CORDE*
Christchurch

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

PUBLICATIONS & RESEARCH PROJECTS

1. FriendScope

Full-Stack Web Application
<https://friendscope.vercel.app/>

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

2. Gradient SVG Generator

Dynamic SVG Generation Suite

<https://gradient-svg-generator.vercel.app/>

- 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.

3. Google News MCP Server

Model Context Protocol Integration

<https://glama.ai/mcp/servers/@ChanMeng666/server-google-news>

- 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.

4. Tencent Meeting Video Downloader

Chrome Browser Extension

https://chromewebstore.google.com/detail/%E8%85%BE%E8%AE%AF%E4%BC%9A%E8%AE%AE%E5%CN&utm_source=ext_sidebar

- 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.

AWARDS & HONORS

- United Nations CSW 69 Speaker — Beyond Beijing 30 Conference, New York, Mar 2025
- Outstanding Performer — UN Women FemTech Hackathon, Mar 2025
- She Sharp Ambassador — Career Development Events, Auckland, Jul 2025 - Present
- AI Forum NZ Mentor — AI Hackathon Festival, Auckland, Aug 2025
- Most Popular Mentor — Forward with Her Program, 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

TECHNICAL SKILLS

Programming Languages: TypeScript, JavaScript, Python, Java, Go, HTML, CSS, SQL, R

AI/ML & Cloud: Generative AI, LLM Integration, NLP, Prompt Engineering, RAG Architecture, AWS (Amazon Lightsail, Bedrock, ECS), IBM Cloud watsonx, Agentic AI Systems

Frontend: React, Next.js, Angular, Tailwind CSS, Redux, Framer Motion, Three.js

Backend: Node.js, Express, Spring Boot, REST API, Flask, FastAPI, WebSocket, Microservices

Databases: PostgreSQL, MongoDB, MySQL, SQLite, Redis, Database Design, Query Optimization

DevOps & Tools: Docker, Kubernetes, Git, CI/CD, System Architecture, API Design, Performance Optimization

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- Software Engineer - HackerRank
- Frontend Developer (React) - HackerRank
- Problem Solving (Intermediate) - HackerRank
- JavaScript (Intermediate) - HackerRank
- Node.js (Intermediate) - HackerRank
- Angular (Intermediate) - HackerRank
- Go (Intermediate) - HackerRank
- Java Professional - JetBrains
- SQL (Advanced) - HackerRank
- Rest API (Intermediate) - HackerRank
- Data Analysis - Microsoft
- Docker Professional - Docker Foundation
- Ubuntu Linux Professional - Canonical
- Agile Project Management - Atlassian
- Cybersecurity - Microsoft

REFERENCES

Professional references available upon request.