Mingrui Xiao

Full-Stack Developer | Unrestricted Workrights

shawnxiao.jobs@gmail.com | 0478903968 | *www.mingruixiao.com.au*

Full-stack software engineer skilled in building scalable web applications, cloud systems, and AI-powered solutions. Strong in Java, C++, C#, Python, TypeScript, React, .NET, and AWS/Azure. Experienced in machine learning research, system design, and delivering secure, reliable, user-focused applications

Skills

- **Programming Languages:** Java, C, C#, Python, HTML, CSS, JavaScript, TypeScript.
- **Frameworks:** Spring Boot, Django, Flask, Node.js, React.js, Vue.js.
- **Databases:** PostgreSQL, MongoDB, Microsoft SQL Server.
- **Cloud Platforms:** AWS, Azure.
- **Backend & Architecture:** RESTful API Development, Microservices Architecture.
- **SCM and CI/CD:** Docker, GitHub, Azure DevOps.
- **ML / AI:** CUDA, PyTorch, TensorFlow.
- **Certificate:** AWS Certified Cloud Practitioner (In progress)

Experience

Full Stack Developer — ***Sydney Chinese School, Sydney***
Nov 2025 - Present

- Optimised and enhanced the school's existing website, delivering improvements across front-end UI/UX and back-end data processing to improve system stability and user experience.
- Designed and developed a new **CRM system**, integrating legacy school systems with **Google Admin** to centrally manage data for **400+ students and administrative staff**, significantly improving data consistency and operational efficiency.
- Implemented modern **LLM-based features** within the new system to automate workflows, support intelligent data processing, and enhance administrative productivity.
- Collaborated closely with administrative teams to analyse requirements, streamline student–teacher data management processes, and reduce manual workload.

Software Engineer — ***ECO JAPAN K.K., Japan***
Mar 2020 - Dec 2020

- Led a 7-member cross-functional team to build a food delivery platform used by **3,000+ local customers** in the Nagoya region.
- Designed, developed, and launched a food delivery application, QING QI SU DA, using **C#, .NET, and Microsoft SQL Server**, which was later acquired by HungryPanda, a major global food delivery platform.
- Increased order-processing efficiency by 50% through backend optimizations and database indexing using Microsoft SQL Server.
- Reduced rider assignment time by 40% through optimized dispatch logic.
- Built an Administrator Back-Office Management System to manage rider profiles, restaurant partners, delivery orders, and time/attendance tracking, enhancing operational efficiency.

Volunteer | Tutor — ***YWCA, Japan***
Sep 2017 - June 2023

- Teaching high and middle-school students Japanese and Mathematics.

Education

The University of Sydney *Sydney, Australia*
July 2023 – July 2025

- Master of Information Technology and Master of Information Technology Management.

NANZAN University *Nagoya, Aichi, Japan*
Apr 2019 – Mar 2023

- Bachelor of Mathematics.

PROJECTS

Research

- Improved GAN methods for generating images with features. And improved StyleGAN2 technology. Produced a thesis published in Japan.
- This research is in the study of Machine Learning, and particularly the study of GAN techniques.
- Using Linux most of the time, learning and using Python3 to implement the logic.
- Using CUDA, TensorFlow and PyTorch to train the models to get the desired results

Farm Management CMS (Full-Stack System for Agriculture Business)

- Developed a centralized Farm Management CMS used to manage 2000+ farm assets, activities, bookings, using React (TypeScript) frontend and Azure Functions (TypeScript) backend with Prisma ORM and Azure SQL Server database.
- Built and optimized key modules including Farm Management, Asset Management, Activity Management, Booking Management, Feature Tags, and User Management.
- Implemented role-based authentication using Microsoft Entra ID, ensuring secure admin access control across APIs and UI.
- Designed structured, accessible, and responsive UIs using Material-UI (MUI) and global theme systems to maintain design consistency.
- Integrated Azure Blob Storage for secure media uploads and storage, and optimized backend API performance.
- Built CI/CD pipelines that reduced deployment time from 10 minutes to 2 minutes, improving developer productivity.

Full-Stack Smart Fitness system

- Trained a PyTorch pose estimation model achieving 92% detection accuracy for major joints in standard fitness movements.
- Implemented real-time inference pipeline reducing frame processing latency to <80ms.
- Using flask to connect python backend to react frontend.
- A smart agent function to analysis and generate plans to trainee, using LangChain to link ChatGPT API.
- Using springboot framework connect PostgreSQL database to store record and exercise data for agent to analysis.