

SHAWN (JINGRAN) LYU

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EDUCATION

Master of Computing and Innovation
The University of Adelaide
Graduated July 2023

Diploma of MicroElectroMechanical Systems
The University of Southampton
Graduated June 2019

Bachelor of Electronics Engineer
Beijing Jiao Tong University
Graduated June 2017

SUMMARY

Full-stack software engineer with 2+ years of experience building scalable web and mobile applications across the full software lifecycle. Experienced in React, React Native, Node.js, FastAPI, and PostgreSQL, with a strong focus on backend architecture, performance optimization, and automation testing. Proven ability to design and deliver end-to-end systems, including AI-powered applications using embeddings and vector search (pgvector). Combines a solid foundation in computing and electronic engineering with practical industry experience to build efficient, reliable, and scalable solutions.

WORK EXPERIENCE

Junior Software Engineer

OneTeam Services

Jan 2025 – Apr 2026

- Developed and maintained cross-platform web and mobile applications using React and React Native, improving user experience and system usability.
- Designed and implemented backend services with Node.js, enabling efficient API integration and data processing.
- Optimized PostgreSQL database performance, improving query efficiency and scalability for production systems.
- Built end-to-end automated test suites using Playwright, reducing manual QA effort and increasing release confidence.
- Collaborated across frontend, backend, and mobile teams to deliver integrated, production-ready solutions.

Associate / Junior Software Engineer

OneTeam Services

Feb 2024 – Jan 2025

- Built responsive user interfaces using Angular and React for enterprise web applications.
- Developed and maintained RESTful APIs using Node.js, supporting business-critical workflows.
- Managed relational databases using PostgreSQL and SQL Server; wrote and optimized complex SQL queries.
- Performed debugging, testing, and production support, resolving issues and improving system stability.
- Gained full lifecycle experience across development, testing, and deployment in an agile environment.

Mobile Application Developer (Intern)

KIK Innovation Ltd

Oct 2023 – Feb 2024

- Led the implementation of user segmentation features in a community-focused mobile application.
- Collaborated within a small team to design and deliver new features, improving application functionality and user engagement.

Software Developer (Intern)

42 Adelaide

May 2023 – Feb 2024

- Developed strong proficiency in C/C++ and Linux systems programming.
- Delivered a technical masterclass, sharing programming knowledge with peers.

Data Analyst (Intern)

Ping An Bank

Nov 2020 – Mar 2021

- Enhanced the Q&A robot algorithm through **data analysis**, collaborating with fellow algorithm team members to achieve an 89% accuracy improvement.
- Employed tools like **Pyppeteer** to develop a web crawler script, streamlining manual tasks and significantly boosting operational efficiency.

PROJECTS

AI Job Search Copilot – Full-Stack AI Resume Matching Platform

Apr 2026

- Built a full-stack AI platform to match resumes with job descriptions using semantic similarity search.
- Designed a production-ready backend using **FastAPI**, **PostgreSQL**, **pgvector**, **SQLAlchemy**, **Alembic**, and **Docker**.
- Implemented embedding generation and cosine similarity ranking, enabling intelligent job recommendations.
- Integrated OpenAI structured outputs to extract and structure resume data.
- Developed frontend using **Next.js** and **TypeScript**, including Google authentication.

MicroTV - Web Application

Sep 2023

- Designed and developed a full-stack **MERN** web application for movie streaming.
- Implemented CRUD functionalities.
- Utilised **Next.js**, **React**, **TypeScript**, **Tailwind**, **PostgreSQL**, **Prisma**.

MyWork - Team Management Web Application (Full-Stack MERN)

Mar 2023

- Designed and developed a full-stack MERN web application for managing team member records.
- Implemented CRUD functionalities, authentication features, and chart visualisations.
- Utilised **React**, **TypeScript**, **MongoDB**, **Express**, and **Material UI**.

Application of Distributed Algorithms in Voting (Web Simulation)

July 2022

- Simulated and visualised leader selection using Raft algorithm for cowboy attack response.
- Designed and optimised web page for frontend; contributed to data feedback and reception on backend.
- Utilised **JavaScript**, **NodeJS**, **HTML**, **CSS**, and **MongoDB**.

E-commerce website conduction and operation

Mar 2021

- Created **Speebuy.com** on Shopify platform, focused on frontend design, sales, and delivery.
- Utilised **JavaScript** for frontend development.

TECHNICAL SKILLS

- Languages: JavaScript, TypeScript, Python, Java, C/C++
- Frontend: React, React Native, Angular, Next.js, Tailwind CSS
- Backend: Node.js, Express, FastAPI
- Databases: PostgreSQL, MongoDB, SQL Server, pgvector
- Tools & DevOps: Docker, Git, Playwright, Linux

- Concepts: REST APIs, Test Automation, Full-Stack Development, Vector Search

ADDITIONAL EXPERIENCE AND ACHIEVEMENTS

- The Complete SQL Bootcamp (2023) — Advanced query writing with PostgreSQL.
- Node.js, Express, MongoDB & More (2023) — Modern backend application development.
- Microsoft Azure AI Fundamentals (2022) — Proficiency in Azure cloud and AI services.
- Kaggle SQL Course (2020) — SQL skills applied via Python.
- China Electrical Engineering Society Cup (2015) — 2nd prize, National Mathematical Modelling Competition (team leader of 3).