

Software Engineer Xiaoling Cui

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I am a career switcher with three years of experience in data-driven business analytics, now transitioning into software engineering. At Holberton School, I built full-stack applications and system-level projects using Python, JavaScript, and C, gaining hands-on experience with React, SQL, RESTful APIs, CI/CD workflows, and Docker.

I thrive in collaborative, agile environments and enjoy developing scalable, user-focused solutions that create meaningful impact.

Skills

- **Languages:** Proficient in Python, JavaScript (ES6+), and C; experienced in building full-stack applications and RESTful APIs.
- **Web Development:** Skilled in React, TypeScript, HTML/CSS, responsive design, and API integration; experienced with Jest and React Testing Library.
- **DevOps & Cloud:** GitHub, GitHub Actions, Docker, AWS, CI/CD.
- **Database:** SQL (PostgreSQL, MySQL) and NoSQL (MongoDB).

Work Experience

08/2016 – 12/2018
Taiyuan, China

Business Analyst Taiyuan Heavy Machinery Group Co., Ltd.

- **Collaborated** with cross-functional teams and international clients to gather and define business requirements, developing BI solutions using SQL, Excel, and Tableau.
- **Extracted** and analyzed large-scale datasets to uncover actionable insights and craft clear, data-driven narratives for internal stakeholders.
- **Conducted** customer survey analyses using mixed analytical techniques to inform operational improvements and strategic decision-making.
- **Led** the development of both manual and automated reporting tools in Excel and Tableau, enhancing reporting efficiency and accuracy.
- **Delivered** training sessions to empower end-users in adopting data visualization and self-service analytics tools, fostering a data-informed culture.

Education

02/2025 – 11/2025

Software Engineer Program Holberton School Australia

- **Engaged** in an intensive, full-time software engineering program emphasizing collaborative, hands-on learning.
- **Developed** real-world applications using Python, C, JavaScript, SQL, and React, strengthening full-stack development skills.
- **Applied** software engineering principles and Test-Driven Development (TDD) to build robust, maintainable codebases.
- **Gained** proficiency in CI/CD workflows and Git-based version control, enabling efficient team collaboration.
- **Studied** data structures and algorithms with a focus on performance optimization and problem-solving techniques.

09/2011 – 07/2016
Xi'an, China

German | Bachelor of Arts Northwestern Polytechnical University

- Completed foundational coursework in computer science (Computer Engineering, Visual Basic Programming).
- Awarded University Scholarship for academic excellence (2012, 2013).
- Developed strong adaptability and intercultural communication skills through one year (2014-2015) study in Germany (Exchange, TU Bergakademie Freiberg)

Projects

07/2025 – 07/2025

Full Stack Software Engineer AI-Powered Post-Surgery Care Assistant

Flask-based post-surgery care assistant powered by the Heidi AI REST API / *Python, JavaScript, HTML/CSS, pytest, Docker*

- **Architected** a Flask backend with vanilla JS/HTML/CSS front end to handle secure uploads, audio transcription, and SSE-driven AI responses.
- **Integrated** Heidi AI APIs (JWT auth, sessions, SSE) with retry/fallback logic to generate structured care plans and consult notes reliably.
- **Built** automated pytest suites with mocked Heidi endpoints covering authentication, transcription, and streaming workflows to prevent regressions.
- **Delivered** a clinician-focused UI with drag-and-drop uploads, progress indicators, and live AI updates to streamline review workflows.
- [View on Github]: https://github.com/xl-c111/heidi_AI_integration_project

05/2025 – 08/2025

Full Stack Software Engineer HBnB - Full-Stack Property Rental Platform

An Airbnb-style web application / *Python, Flask, SQLAlchemy, MySQL, JavaScript, CI/CD, HTML/CSS*

- **Built** RESTful APIs with JWT authentication and Swagger documentation using Flask-RESTx.
- **Optimized** database performance by 70% by resolving the N+1 query issue (reduced from 9 queries to 3).
- **Designed** normalized MySQL schemas with foreign key constraints and many-to-many relationships.
- **Implemented** security measures including bcrypt password hashing, JWT-based access control, and SQL injection prevention.
- **Achieved** comprehensive test coverage (36+ unit tests) using pytest to ensure reliability.
- [View on GitHub]: <https://github.com/xl-c111/holbertonschool-hbnb>

Additional Information

- **Languages:** English, Mandarin, German.
- **Visa:** Australian Permanent Resident.
- **Location:** Based in Melbourne and open to onsite, hybrid, or remote roles.
- **Collaboration:** Agile sprints, pair programming, code reviews

Social Media



LinkedIn



GitHub



Personal Website