

# Aayush Bajaj

📍 Sydney ✉ j@abaj.ai ☎ 0481 910 408 🌐 abaj.ai 📄 github.com/abaj8494 🔗 linkedin.com/in/abaj

## Summary

- Software Engineer with experience building production web applications and developer tools. Proficient in Python, Go, TypeScript, React, and cloud deployment with Docker and Azure.

## Experience

### Software Engineer - Medical Web Application

*Sydney, NSW*

*Alpha-Cure Medical Centre*

*June 2024 - Nov 2024*

- Led 5-person team to deliver production medical records system replacing legacy desktop software; achieved High Distinction.
- Built Flask backend with Azure SQL database and React frontend; achieved 90+ percent test coverage with Pytest and Cypress.
- Containerised application with Docker and implemented Git-based CI/CD pipeline for automated deployment.

### Software Engineer - AI Chat Application

*Production*

*Independent Development*

*Jan 2025 - June 2025*

- Built full-stack chat application using TypeScript, Bun, Svelte, and PostgreSQL with Prisma ORM.
- Implemented security middleware with rate limiting, response caching, and OpenAI GPT API with streaming responses.

### Technical Consultant - Web Infrastructure

*Sydney, NSW*

*Freelance*

*2024 - 2025*

- Delivered production web infrastructure including static-site generation, Dockerised mail server, DNS, and HTTPS with Git-based CI/CD.

## Projects

### Build Your Own Git

*Codecrafters*

- Implemented core Git commands in Go including object storage, tree parsing, commit traversal, and pack file delta compression.

### Bytelocker - Cross-Editor Encryption

*Open Source*

- Built encryption library in C with native Neovim (Lua) and Emacs (Elisp) plugins; published with comprehensive test suites.

### Technical Knowledge Platform

- Architected Hugo static site with 1073 pages, custom Nginx build, automated SSL renewal, and systemd orchestration.

## Skills

**Languages:** Python, Go, TypeScript, JavaScript, Java, C, SQL

**Backend:** Flask, REST APIs, PostgreSQL, Azure SQL, OAuth2, JWT, Nginx

**Frontend:** React, Svelte, HTML, CSS, Node.js, Bun

**DevOps:** Docker, Azure, AWS, Git, CI/CD, Linux, Systemd

**Testing:** Pytest, Cypress, JUnit, TDD, Code Coverage

## Education

**University of New South Wales**

*Sydney, Australia*

*Bachelor of Computer Science (AI), Minor Mathematics*

*Feb 2021 - Sept 2025*

## Certificates

**AWS Solutions Architect (SAA-C03)**

*Jan 2026 - Feb 2026*

*Amazon Web Services*