IBRAHIM SHARIF

+61 452 110 292 ◇ Sydney, NSW ◇ mohammedibrahimsharif@gmail.com
Website ◇ LinkedIn ◇ GitHub

SUMMARY

Software Engineer with hands-on experience developing backend and full-stack applications using Python, Java, JavaScript, React and Docker. Focused on designing efficient and maintainable systems, with a strong interest in distributed systems, software architecture and evaluating technical trade-offs. Known for taking a proactive approach to problem-solving, learning new technologies quickly and adapting to new challenges. Looking to grow into a full-stack engineer who can design, build and maintain reliable, scalable software and take ownership across the development lifecycle.

EDUCATION

Western Sydney University, Sydney Mar 2023 – Jan 2026
Bachelor of Computer Science
High Distinctions: Artificial Intelligence, Distributed Systems and Programming, Professional Experience
Capstone: 97/100, nominated for Best Capstone Project
Relevant Coursework: Data Structures and Algorithms, Distributed Systems, Object-Oriented Programming, Database Design, Systems Programming, Formal Software Engineering, Information Security
Activities: Western Association of Computing and Mathematics (WACM), WSU LaunchPad

SKILLS

Programming: Python, C++, Java, JavaScript, SQL
Backend Development: FastAPI, REST APIs, Spring Boot, API Integration, PostgreSQL, Authentication
Frontend Development: React, Next.js, HTML, CSS
Testing & Reliability: Pytest, Unit Testing, Integration Testing, Concurrency Testing, Debugging
Cloud & DevOps: Docker, AWS (EC2, S3, Lambda, IAM), Linux, nginx, Git, GitHub Actions CI/CD
AI & Automation: LangChain, LangGraph, RAG, ChromaDB, Claude API, LangSmith
Soft Skills: Active Listening, Conflict Resolution, Cross-functional Team Collaboration, Stakeholder Communication

EXPERIENCE

Software Engineer – AutoMark (University Capstone) Jul 2025 – Nov 2025
Western Sydney University
Python, FastAPI, JavaScript, HTML, CSS, Docker, SVN, nginx

Responsibilities

- Designed and developed core backend services using FastAPI, implementing JWT authentication, role-based access control, subject enrolment, assignment management and submission tracking.
- Developed and integrated frontend features using HTML, CSS and JavaScript, connecting student and lecturer dashboards with REST APIs for assignment management, file submissions, grading results, feedback, and reporting.
- Built an end-to-end grading workflow connecting SVN commits, FastAPI services and isolated Docker containers, automatically processing code submissions, executing grading scripts, and returning scores and feedback.
- Implemented a durable job queue and independent grading workers on AWS, separating submission intake from grading execution to improve reliability and support concurrent workloads.

Achievements

- Automated a manual grading process that previously required approximately 15 minutes per submission, reducing repetitive work through automated submission handling, code execution, and feedback generation.
- Successfully tested 200 concurrent submissions end to end, with all 200 jobs accepted and graded. All SVN commits were accepted in 18.17 seconds, with P95/P99 grading completion times of 155s/157s.

Software Engineer – Deloitte Australia (University Industry Project) Mar 2025 – Jun 2025
Western Sydney University

- Worked with Deloitte Australia stakeholders as part of a university team to develop DAITA, a tax decision-support application helping consultants process financial documents, classify transactions and generate reports.
- Developed a financial document-processing application using Python, FastAPI and Pydantic, supporting secure uploads, background processing, manual classification corrections, approvals and report exports.
- Built a document-processing pipeline using Python and pandas to process CSV, Excel and scanned PDFs, incorporating column mapping, data normalisation, duplicate detection and validation.
- Developed a versioned tax knowledge engine using Python to match classified transactions with applicable ATO rules, providing references, confidence scores and documentation requirements for review and approval.

Corporate Team Member, 7-Eleven Jun 2023 – Present
Sydney, NSW

- Managed store ordering and stock replenishment, monitoring inventory levels and ensuring product availability to support daily operations.
- Resolved customer and operational issues, including point-of-sale disruptions, while working with teammates to manage busy periods and maintain smooth store operations.

PROJECTS

EquityGuard – Full-Stack AI Financial Risk Platform GitHub
Python, FastAPI, React, LangChain, Claude API, ChromaDB, Docker, GitHub Actions

- Designed and built a full-stack financial risk application using React and FastAPI, integrating 6 financial market, news, analysis and retrieval tools through external APIs.
- Developed an AI workflow that processes financial data, selects relevant tools and returns structured results, with input validation and error handling to improve reliability.
- Built 23 automated tests covering financial calculations, API integrations and workflow behaviour, using GitHub Actions CI to run tests automatically and catch regressions.

MediQuery – Clinical RAG & Document Retrieval Platform GitHub
Python, FastAPI, React, LangChain, ChromaDB, BioBERT, Docker

- Built a full-stack biomedical research application using React and FastAPI, allowing users to search medical research and receive answers supported by source citations.
- Developed an automated data pipeline that collects research papers from PubMed, processes documents and stores embeddings in ChromaDB for efficient retrieval.
- Integrated BioBERT and MMR retrieval techniques, separating document ingestion, search and answer generation into modular components for easier testing and maintenance.

Autonomous Returns & Resolution Agent GitHub
Python, LangGraph, LangChain, Claude API, Pydantic, Pytest, LangSmith

- Built an AI-powered returns system that processes customer requests, retrieves order information and follows a multi-step workflow to provide structured decisions.
- Designed the workflow using LangGraph, combining AI reasoning with fixed business rules and Pydantic validation to keep decisions consistent and predictable.
- Developed 13 automated tests covering business rules, missing information, invalid inputs and tool interactions, using LangSmith to trace and investigate failures.

CERTIFICATIONS

- LangChain and LangGraph AI Engineer: Agents, Agentic RAG and MCP
- ACS Professional Year Program, Australian Computer Society Apr 2026 – Present