

Bilal Ahmed

Software Developer & IT Engineer

Melbourne, VIC, Australia | Monash University — BIT Software Development **Open to Opportunities**

PROFESSIONAL SUMMARY

Full-stack developer and systems thinker with hands-on production experience across enterprise cloud infrastructure, healthcare SaaS, and application development. Known for rapid delivery, deep architectural thinking, and the ability to operate fluidly across development, infrastructure, and business domains simultaneously. Brings a rare combination of formal academic grounding and real-world engineering discipline. Currently completing a Bachelor of IT at Monash University — a deliberate choice that reflects a core belief: learning never stops, and education and experience are not alternatives but complements. Knowledge is actively pursued through every available avenue: university, industry, and continuous self-directed growth.

EXPERIENCE

Software Developer & IT Engineer | [Axis Imaging](#) — Mickleham, VIC *Project* | *Ongoing*

Hybrid role spanning full-stack development, cloud infrastructure, and clinical systems administration in a production healthcare environment where system reliability has direct patient impact.

Web Development & Internal Platforms

- Designed and built the Axis Imaging website from the ground up, including a custom management dashboard with modules for online booking enquiry management, staff document storage, staff timesheet tracking, phone analytics, and a marketing performance dashboard.
- Integrated Foxo live chat across all digital touchpoints and built branded RTF report templates within the Voyager RIS platform.

Cloud Infrastructure & DevOps

- Managed and optimised a fleet of 13 Azure virtual machines in a production healthcare environment, including VM resizing, CPU credit depletion resolution, maintenance window planning, and cost optimisation.
- Maintained CI/CD pipelines and deployment environments for internal web applications, ensuring stable and repeatable release processes.
- Resolved complex production infrastructure incidents including domain trust failures, Winsock stack corruption, Kerberos clock-skew, and Mirth Connect memory pressure.

Clinical Systems & Security

- Administered Sectra PACS infrastructure integrated with Voyager RIS via HL7/Mirth Connect, including interface engine configuration and healthcare data workflow automation.
- Implemented Keycloak-based SSO with Active Directory federation and role-based access control (RBAC) across clinical applications.
- Configured and maintained FortiGate VPN/firewall, CrowdStrike Falcon endpoint security, and full TLS certificate lifecycle management.

Software Developer | [SonoFlow](#) — *AI-Assisted Ultrasound Reporting Platform* — Melbourne, VIC *Project* | *Ongoing*

End-to-end development role across architecture, engineering, and product for a clinical SaaS platform that streamlines structured ultrasound reporting.

- Architected and developed a deterministic three-stage clinical reporting pipeline using TypeScript and Node.js, replacing an LLM-dependent approach with a fully rule-based engine — demonstrating sound engineering judgement about when not to use AI.
- Built a clinical registry sourced from SNOMED CT-AU, LOINC, RadLex, and DICOM Part 16 standards, comprising 173 anatomical structures, 157 measurements, 35 descriptor types, and 366 scan types.
- Designed a comprehensive obstetric morphology schema incorporating established clinical grading systems including SFU Hydronephrosis, ISUOG Ventriculomegaly, and Stocker CPAM classifications.
- Refactored a monolithic report builder into a strategy-pattern enterprise architecture, significantly improving scalability, testability, and long-term maintainability.
- Developed full product documentation including PRD, technical architecture, pricing strategy, and go-to-market proposals targeting small-to-mid ultrasound clinics.

EDUCATION

Bachelor of Information Technology | [Monash University](#) — Melbourne, VIC *In Progress*

Major: Software Development

Relevant Coursework

- Database Systems · Software Engineering · Web Development · Application Development · System Design

Academic Projects

- Santorini Board Game — Java, Swing, OOP; full desktop implementation with GUI gameplay, complete game logic, God Card mechanics, and turn-based architecture.
- Android Nutrition App — Kotlin, Jetpack Compose, MVVM architecture with full Android lifecycle management and modern declarative UI.
- Property Rental Database System — SQL, Oracle Data Modeler; full ER design, normalisation to 3NF, logical model implementation with surrogate keys and check constraints.
- Web Application — PHP, CakePHP MVC architecture, full CRUD operations, AJAX, jQuery, and MySQL backend.

Studying while working full-time is a deliberate choice, not a circumstance. It reflects a belief that formal education and real-world experience sharpen each other. Growth is an ongoing commitment, not a phase with a finish line.

TECHNICAL SKILLS

Languages	TypeScript · JavaScript · Java · Kotlin · SQL · PHP · HTML / CSS
Frontend	React (Vite) · Jetpack Compose · jQuery · AJAX · Swing (Java GUI)
Backend	Node.js · CakePHP · HL7 / Mirth Connect · RESTful APIs · C#/ .NET
Databases	PostgreSQL · Supabase · MySQL · Oracle Database · Relational DB Design
Cloud & DevOps	Microsoft Azure (VM fleet management) · CI/CD pipelines · Infrastructure optimisation
Security & Auth	Keycloak (SSO / RBAC) · FortiGate VPN · CrowdStrike Falcon · TLS / PKI · Let's Encrypt
Clinical Standards	SNOMED CT-AU · LOINC · DICOM · RadLex · HL7 · Sectra PACS · Voyager RIS
Tools	Git / GitLab · IntelliJ IDEA · Android Studio · VS Code · Oracle Data Modeler

KEY STRENGTHS

- **Adaptability:** Switches fluidly between languages, stacks, and domains depending on what the problem demands.
- **Systems Thinking:** Designs end-to-end architectures, not just individual components. Understands how pieces connect at scale.
- **Rapid Development:** Delivers production-quality work fast, under real-world constraints
- **CI/CD & DevOps:** Comfortable owning deployment pipelines, cloud infrastructure, and the full release lifecycle.
- **Keeping Up With Technology:** Consistently evaluates and adopts modern tooling — from Jetpack Compose and Supabase to Azure and AI/LLM integration.
- **Lifelong Learning:** Actively studying while working full-time. Pursues growth through every available avenue because development has no finish line.