



ARCHIE LI

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EDUCATION

-  **University of New South Wales (UNSW)** *Bachelor of Computer Science* Jun 2020 - Dec 2022
✓ Completed the 3-year degree program in 2.5 years while working full-time, achieving a 5.44/7 GPA.
-  **University of Adelaide** *Master of Civil Engineering* Feb 2011 - Dec 2012

PROJECTS - the emphasis is on learning and hands-on practice in a collaborative environment

CSEtutors (MongoDB/Express/React/Node)

A full-stack CRUD web application utilising a RESTful API functions as a dynamic marketplace connecting students with private tutors for paid tutoring services.

- Completed Requirement Analysis (User stories, Use cases) and received approval for the project proposal.
- Applied Agile principles using GitHub and Jira for 3 Scrum Sprints. Played a significant role in advancing Backlog completion as a lead developer, collaborating closely with the team to achieve the set Sprint goals.
- Architected and developed RESTful APIs within Express to facilitate seamless communication between the frontend and backend. Tested APIs using Postman and documented them using Swagger UI.

DungeonMania (Java/JUnit/OOD/TDD/Gradle)

A Java backend web application completed collaboratively in three milestones, adopting Kanban as the Agile practice, serves as the replication of a retro native game application, providing a modern and enhanced UX.

- Designed and continuously refined the domain model in UML diagrams using OOD patterns.
- Unit tested and implemented key features by carrying out SOLID Object-Oriented Design principles and TDD practice in each milestone, resulting in reliable, maintainable, and scalable solutions.
- Mapped out tickets, story points, and priorities in Kanban Task to efficiently manage the delivery progress, resulting in improved workflow and team coordination, and leading to timely completion of all milestones.

ChatCLI (Python/Multithreading)

A real-time CLI application enabling bidirectional communication between multiple clients and a server and full-duplex communication channels.

- Implemented user authentication, blacklisting/timeout, presence/message broadcasting/notification, online presence/message query, online/offline messaging, and P2P direct messaging features.
- Created the communication protocol format at the application layer of the TCP/IP Five-Layer model.

SKILLS

- Programming languages:
 - ✓ Proficient: **Java, Python, SQL, JavaScript, Shell Scripting**(Bash/PowerShell), C
- Tech:
 - ✓ Framework: **Spring, Spring Boot/Data/Cloud/Security, Hibernate, RDBMS**(PostgreSQL), **NoSQL, React**
 - ✓ Tool: **Maven, AWS**(EC2/EBS/S3/RDS/Lambda), **Postman, Docker, Linux, Git, Jira**
- SDLC: **REST/SOAP APIs, MVC, OOD, Microservices, Agile**(Scrum), **TDD, CI/CD**

EMPLOYMENT

 **Civilmart** Sydney, NSW
Estimator Jan 2015 - Current

Preparing accurate cost estimates and quotes of Stormwater Drainage products and works for nationwide subdivision development, road, and infrastructure projects.

- Client Liaison & Quotation Preparation (Client Communication - RFQs, Prepare Quotes - BoQs, take-offs)
- Supplier & Vendor Coordination (Procurement, Vendor Management, Price Negotiation)
- Bid & Tender Support (Tender Assistance, Collaborate with Clients - Subcontractor Pre-Award Checklist)
- Material Cost Estimation (Material Pricing - BoMs, Product Specifications)
- Reporting & Documentation (Record-Keeping, Reporting - Declaration of Compliance)

 **John Holland** Adelaide, SA & Sydney, NSW
Graduate Engineer Mar 2013 - Jan 2015

\$1.15b Sydney Metro Northwest Tunnels & Station Civil (TSC) & \$842m Adelaide South Rd Superway projects

- Project Management Support (Planning & Scheduling, Coordination, Documentation Control) - Aconex
- Site Supervision (On-Site Monitoring, Subcontractor Management - Incite Keystone)
- Health, Safety, Environmental & Quality (HSEQ) Compliance (OHS, SWMS, TRA, QA/QC etc.)
- Cost Control & Procurement (Budget Management, Material Procurement)
- Technical Problem Solving (Engineering Solutions, Design Interpretations - RFIs)