Ryan Taylor

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Profile

AI Engineer with 5 years of experience designing and deploying AI infrastructure, reusable patterns, and evaluation frameworks using Microsoft technologies. Proven ability to bridge pro-code and low-code environments, enabling cross-functional teams to integrate AI capabilities into production systems. Specialized in Azure OpenAI, Semantic Kernel, agent tooling, and enterprise-grade AI solution architecture with C# and Python. Strong track record of technical leadership, establishing AI standards, and delivering measurable business impact through composable, maintainable AI components.

Experience

Sedgman - Systems and Innovations Brisbane, QLD
Software Engineer Jan 24 – Present

- Developed Preventative Maintenance Optimisation application using Azure Document Intelligence for text extraction and LLM-based classification to automatically categorize maintenance tasks, saving 250 hours of manual data entry or $30,000 per project.
- Developed and supported Sedgmetrix, an online IoT monitoring application, contributing to large-scale C# projects deployed with Kubernetes by implementing a new microservice feature.
- Built LLM applications for business process automation: LangGraph-powered contract review assistant that automates risk assessment against company compliance requirements, and RAG-based document search system using Azure Semantic Kernel and Azure AI Search for historical knowledge extraction.

Sedgman - CIMIC Graduate Program Brisbane, QLD
Data Scientist Jan 22 – Jan 24

- Processing plant IoT anomaly detection models: Following MLOps best practices, deployed a Databricks system to lower the model deployment time from 1 month to 1 week. The most valuable model resulted in a $3.6 million increase in revenue per week at a processing plant.
- Developed operational technology data pipelines for mining applications, including a vibration analysis system that processed raw binary displacement data from industrial equipment to generate predictive maintenance alarms, and a real-time moisture optimisation solution using LiDAR and time-of-flight sensors to measure product moisture levels.

Mega Electrics Brisbane, QLD
Software Developer Feb 21 – Dec 21

- Contributed to licensing platform development with Node.js backend, implementing secure file upload/storage via Azure Blob Storage and user access controls for contractor time sheeting systems.

Leadership & Activities

CIMIC Graduate Council 2022-2023

- Progressed from Networking Committee member to QLD Lead, organizing networking events for graduate cohort and serving as primary liaison to gather feedback and drive program improvements. Delivered presentations to QLD graduates across online and in-person formats.

Achievements

- Meakin Technical Innovation Award (Sedgman) - 2024 Winner for Preventative Maintenance Optimisation Application

- Queensland Corporate Games Soccer 6s Captain - 2024 & 2025 Champions
- Published paper: “Triggering a PLC Change using a Cloud-based Machine Learning Model” - APCOM 2025 (Application of Computers & Operations Research in the Minerals Industry)
- Published paper: “LIDAR optimisation of belt press filter flocculant dosing” - 21st ICPC 2025 (International Coal Preparation Congress)
- Published paper: “Practical applications of data science in processing plants” - 20th ICPC 2023 (International Coal Preparation Congress)

Technical Skills

- **Backend Engineering:** Python, C#, Node.js, RESTful & GraphQL APIs, microservice architecture
- **Data and Databases:** Row(Azure SQL), columnar(Parquet, Delta tables), object(MongoDB, Cosmos DB), vector(Pinecone, Azure AI Search) and graph(Gremlin) databases.
- **Cloud and Infrastructure:** Azure services, Kubernetes, Docker, CI/CD pipelines
- **Machine Learning:** Model training (XGBoost, DBSCAN, PCA), MLOps best practices, production deployment optimization, inference pipeline development
- **Large Language Models:** System evaluation and testing, RAG and context enrichment, agentic AI development (LangGraph), prompt engineering

Education

Griffith University Brisbane, QLD

Bachelor of Computer Science, Majoring in Data Science & AI

- Capstone: Designed and implemented a multiobjective particle swarm optimiser running on the Griffith High Performing Compute Environment, to assist Menzies Health Institute researchers to simulate knee operations.