James Dunwoodie-Rowley

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Experience

AI Developer – Full-time, Datacom   Sep 2025 - Present
- Building and deploying AI-powered Full-Stack solutions for enterprise clients using a wide range of AI technologies and frameworks

AI Developer – Full-time, Fonterra   Dec 2023 - Sep 2025
- Developed an internal AI MultiAgent chatbot capable of combining custom agents for insightful responses for 3500+ monthly users, to replace external AI tools and reduce costs in a fast-paced agile team
- Transitioned an application from custom Langchain stack to Semantic Kernel, enabling more complex agent interactions and auto agent routing
- Introduced real-time message streaming using Azure Web PubSub, significantly improving responsiveness and user engagement, hiding increased multi agent response times
- Led development of new full-stack unit testing framework, enhancing code reliability and maintainability
- Rebuilt the front-end interface to enhance usability, readability, and accessibility, based on iterative feedback from internal testing and real user behavior
- Moved server-side session storage to Cosmos DB to remove cache limits and consolidate data
- Delivered regular demos to leadership during sprint reviews, increasing cross-team visibility and contributing to broader adoption of transparent development practices
- Single handedly designed and implemented cutting edge natural language to SQL engine using RAG pipelines for contextual understanding of table schemas and training data
- Built a front-end interface for the SQL engine supporting chat history, prompt libraries and evaluation tools
- Led and mentored interns to improve the performance and accuracy of the SQL generation engine

AI Developer – Part-time, Fonterra   Apr 2023 - Dec 2023
- Developed an internal tool for process safety teams, leveraging cutting-edge RAG techniques to surface insights
- Worked closely with stakeholders to refine product requirements and rapidly iterate on feedback
- Built custom ingestion pipelines to unify data from diverse sources into structured tables
- Developed and optimised multimodal LLM-powered extraction and evaluation tools that preserved document layout and spatial structure, enabling precise, context-aware data interpretation

Projects

STL upload Portal   regal.co.nz
- Built and deployed a full-stack web application for uploading and managing STL files for regal casting

Go Bear AI Job Search   gobear.me
- Led a team of three to develop a full-stack AI job search platform, integrating advanced LLM capabilities for personalized job matching and automatic CV/Cover letter customisation

Skills

Languages: Python, C++, C#, Java, Bash, SQLite, TypeScript, JavaScript, MD, HTML, CSS
Dev Technologies: FastAPI, React, DotNet, Docker, Jinja2, Swagger, Linux, Git, GitHub, GitHub Actions, CI/CD
AI/ML: Pandas, TensorFlow, Vector Databases, Azure AI Foundry, LangChain, LlamaIndex
Other: Jira, Confluence, Agile, Scrum, Kanban, Problem Solving, Teamwork, Communication

Education

University of Auckland – Bachelor of Science majoring in Computer Science   2021 - 2024