

JOHNSON PAKU

Software Engineer — AI & Agentic Systems

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PROFESSIONAL SUMMARY

Innovative software engineer with a degree in Software Engineering (AI major), blending deep technical skills in full-stack development with hands-on experience in large language model (LLM) fine-tuning, backend infrastructure, and AI system deployment. Proven ability to lead end-to-end ML pipelines, integrate secure APIs, and deliver scalable, production-ready solutions using Azure, Linux, and modern DevOps tools. Passionate about turning cutting-edge AI into real-world, multi-modal applications that are secure, efficient, and user-focused.

TECHNICAL SKILLS

AI/ML Engineering: LangChain, LangGraph, CrewAI, AutoGen, Model Context Protocol (MCP), Microsoft Copilot Studio, Supervised Fine-Tuning, QLoRA quantization, Azure OpenAI, DeepEval

Cloud & Backend Systems: Python (FastAPI, Django, Flask), Node.js, C# / Azure Functions, PostgreSQL, Microsoft Dataverse, Docker, Azure Container Apps, Nginx, Azure App Service, Static Web Apps, GitHub Actions CI/CD, SQL Server Management Studio, Cosmos/MongoDB

Power Platform: Power Apps, Power Automate, Power BI, Dataverse, Microsoft Fabric

Agile Delivery: Sprint planning, stakeholder demos, cross-functional delivery in a start-up-style internal team

Web & Product Development: React 18, TypeScript, Next.js, Vite, Tailwind CSS, Microsoft 365 Graph & SharePoint APIs, Stripe, Google Calendar API

Cross-Platform App Development: Expo / React Native

UI/UX & Visual Design: Product prototyping, interface design, graphic design (Canva), Squarespace, Google Stitch, Claude Design, Polymet

PROFESSIONAL EXPERIENCE

Associate Software Developer | **Datacom**

Sydney, NSW | Sep 2025 – Present

Conver — Enterprise AI Platform

- **Multi-agent orchestration:** Contributed to routers and conversation hand-off workflows so agents can pass context between each other during live user interactions.
- **RAG pipelines:** built production retrieval-augmented generation pipelines connecting internal document stores to LLM responses, with grounded source citations.
- **Backend & identity:** Contributed to backend architecture security with Microsoft SSO and OAuth2/OIDC authentication.
- **Platform scaling:** co-deployed an internal agent-sharing platform with secure, isolated access boundaries across business units.

Tools & Technologies: LangChain/LangGraph, MCP, Microsoft 365 Graph API, Microsoft Search API, SharePoint Online REST API, Azure OpenAI Foundry, Python (FastAPI, Django, Flask), Node.js, Nginx

SOW Studio — Statement of Work Lifecycle Application

- **Structured generation:** constrained Azure OpenAI output to fixed JSON schemas with validation layers, guardrails, and before/after audit trails.
- **Pricing engine:** built a commercials module with Active Directory role search, automatic labor-row generation, and GST-aware calculations.

- **Document automation:** built a pipeline that extracts contract terms and generates live HTML previews plus production-ready .docx files.
- **Deployment:** deployed to Linux containers on Azure App Service with CI/CD (linting, testing, build, deploy) via GitHub Actions.

Tools & Technologies: React 18, TypeScript, Vite, FastAPI, Python, Azure OpenAI Service, Codex CLI, Pydantic, Azure Static Web Apps, PostgreSQL, GitHub Actions, DeepEval

Copilot Studio Evaluation & Rollout

- **Platform R&D:** evaluated and rebuilt SOW Studio's multi-agent workflow natively in Microsoft Copilot Studio, replicating its agent orchestration for native enterprise-wide deployment.
- **UAT delivery:** acted as lead developer building UAT features from stakeholder requirements post-launch, with Flask/FastAPI and CI/CD via Playwright.
- **Agentic tooling:** built Azure Functions and containerised tools/MCP servers to pull data from siloed internal systems directly into the template-generation workflow.

Graduate Data Analyst | Datacom

Auckland, NZ | Sep 2023 – Jul 2025

Change Management Application

- **Database:** built a relational data model in Microsoft Dataverse for tracking change predictions at scale.
- **Frontend:** built a Power App with role-based access control for operational team mapping.
- **Workflow automation:** built Power Automate workflows for change request approvals.
- **Admin tooling:** enabled administrators to relabel changes and reallocate opportunities.
- **Fine-tuning:** deployed a supervised fine-tuning pipeline with quantization for processing business text logs, lifting classification accuracy from 75% to 93%.
- **Document & email automation:** used Azure OpenAI to auto-generate the majority of the change manager template document and notification email content.

Tools & Technologies: Power Apps, Microsoft Dataverse, Microsoft Entra ID, Power Automate, Microsoft Fabric, Power BI, Azure OpenAI

TACO — Timesheet & Contract Analysis System

- **Architecture:** Contributed to contract-aware system architecture to support compliance and data-integrity checks.
- **Validation:** Contributed a service to verify compliance criteria across document states.
- **Data ingestion:** built the FastAPI data pipeline to ingest and display data.
- **Costing engine:** Contributed the evaluation and deployment of the fine-tuned models to flag misclassified Time & Materials charges.

Tools & Technologies: Python, FastAPI, React, PostgreSQL, Microsoft Entra ID, Azure, GitHub Actions, PyTorch, Hugging Face

Research Summer Scholar | Media Design School

Auckland, NZ | Dec 2022 – Feb 2023

- **Bias audit:** evaluated facial recognition model accuracy across demographic groups, focusing on bias in detecting Māori and Pacific tā moko (tattoo) patterns, using PyTorch, MTCNN, and ResNet.
- **Research output:** findings contributed to a published research paper on algorithmic bias in facial recognition.

Intern Data Analyst | Datacom

Auckland, NZ | Jul 2022 – Dec 2022

Real-Time Spatial Analytics & Wi-Fi Tracking Application

- **Signal tracking:** deployed and analysed Wi-Fi probe-request data on Raspberry Pi devices to roughly triangulate device positions.
- **Computer vision:** used fisheye-lens CV models (RAPiD) to generate foot-traffic heatmaps from pixel-to-distance vectors.
- **Tooling:** organised CSV training datasets and built an interactive Streamlit app triggered by Azure Functions.

Tools & Technologies: Azure Blob Storage, C# Azure Functions, Python, Streamlit, PyTorch, Torchvision, CUDA Toolkit, Pandas, OpenCV

EDUCATION & QUALIFICATIONS

Bachelor of Software Engineering (Artificial Intelligence Specialist) — Torrens University Australia, 2022

Micro-credential in Cloud Computing for Business Professionals (AWS) — University of Auckland, 2023

Microsoft Certified: Azure AI Fundamentals (AI-900) — Microsoft, 2024

HACKATHONS & TECHNICAL PROJECTS

- **Datacom Hackathon (2022):** collaborated with a cross-functional team to deliver a full-stack MVP within 48 hours.
- **AI Hackathon — Biodiversity (2023):** designed a data-driven solution to assess the environmental impact of agriculture and livestock on waterway biodiversity, focusing on microbiological quality and ecosystem health.
- **AI Challenge — Environmental (2023):** built part-level detection into a neural network model to reduce false positives in rat detection by analysing distinct body features.
- **A.I. GovHack — Biodiversity (2024):** designed a Power App for tagging garbage bins and capturing recycling data, using multi-modal GPT with engineered prompts for image classification.
- **ServiceNow Hack (2025):** built agentic system architectures with autonomous decision-making, tool-use orchestration, and automated CSM workflows.
- **Academic data projects (2022):** review sentiment/topic analysis with a Markov-chain sentence generator (NLP, Python); transactional relationship analysis using the Apriori algorithm (support, confidence, pruning); and anomaly detection on weather data using DBSCAN, isolation forest, SVM, and outlier factor analysis.

PERSONAL PROJECTS

- **Web & E-commerce Platforms:** build interactive static sites on Azure Static Web Apps and Firebase, including a Firebase-backed CMS with secure data-intake forms for e-commerce workflows using Stripe; built automated scheduling and booking systems synced to the Google Calendar API; manage custom domain routing and SEO. Currently exploring Google Stitch, Claude Design, and Polymet, and prototyping mobile apps with React/Expo.
- **Church Website & Design:** maintain a live community church website and commerce store in Squarespace, and design outreach fliers and visual assets in Canva.

REFERENCES

Available on request.