

HANS HUANG

MARKETING AI | AUTOMATION | DATA & ROI ANALYTICS

Portfolio: <https://www.hanscareerbot.com/>

Auckland, New Zealand | 022 410 9280 | hanshuang2906@gmail.com | New Zealand citizen | Full driver license

PROFESSIONAL PROFILE

AI and data practitioner who has completed the requirements for a Master of Artificial Intelligence with First Class Honours, combining hands-on Python, SQL, API, ELT and automation project work with Power BI and Microsoft Fabric exposure, plus over four years of professional engineering experience in New Zealand. Built PostgreSQL and Airflow pipelines, machine-learning models, RAG systems and intelligent-automation tools, supported by disciplined testing, data-quality checks and stakeholder communication. Well positioned to connect product, inventory, location and campaign data, automate AIGC workflows, and build decision dashboards that align marketing activity with stock availability, inventory turnover and ROI.

CORE CAPABILITIES

- **Data integration and APIs:** Python, SQL, PostgreSQL, REST API and JSON ingestion, ELT pipelines, staging and core schemas, Apache Airflow and Docker Compose; a practical foundation for joining ERP, product, inventory, location and campaign data.
- **Analytics and dashboard tooling:** Power BI, Microsoft Fabric, Excel, Pandas, NumPy, scikit-learn, data preprocessing and mathematical modelling; structured analysis for KPIs, exceptions and decisions around ROI, stock turnover and availability.
- **Generative AI (AIGC) and automation:** LLMs, RAG, AI agents, natural language processing, prompt and instruction design, output evaluation, chatbots, document-processing workflows and intelligent-automation prototypes.
- **Workflow engineering and controls:** Process mapping, solution design, data-quality checks, rule-based validation, orchestration, pytest, GitHub Actions and traceable technical documentation.
- **Delivery and deployment:** Requirements clarification, backend-to-frontend and API workflows, automated testing, Vercel, Azure and AWS deployment, and iteration against user requirements.
- **Cross-functional communication:** Requirements capture and coordination with clients, councils, contractors and project teams; clear explanations for technical and non-technical audiences; fluent English and Mandarin.

SELECTED DATA, AI AND AUTOMATION PROJECTS

- **AIGC product-listing workflow:** Built an AI-assisted workflow to generate and refine product images for Amazon listings, reducing photography and editing requirements while improving the speed and consistency of product-content production.
- **Agent-assisted consistency checking:** Developed applications that encode domain rules to identify discrepancies between foundation calculations and geotechnical reports and verify consistency across plans and calculations.
- **Image-to-Excel workflow automation:** Built a tool that converts information from images into structured Excel templates, turning a manual process into repeatable extraction, transformation and formatting steps.
- **AI interaction prototypes:** Built a web chatbot, automated motel call receiver and LLM-enabled robotic-arm systems; developed the call receiver and robotic-arm solutions as MVPs and refined them through model testing and functional validation.
- **RAG research-support system:** Built a retrieval-augmented generation workflow that surfaces relevant information and supports a Marsden Fund application through structured retrieval and review.
- **YouTube Data API ELT pipeline:** Built a course-guided pipeline with Python, SQL, PostgreSQL, Airflow and Docker to ingest API data, transform staging and core schemas, run data-quality checks and automate tests with GitHub Actions.
- **Pipeline-defect classification:** Completed a Master's research project using underground CCTV data to classify pipe defects through data analysis and machine-learning methods.

PROFESSIONAL EXPERIENCE

AI Developer (Self-employed) | Auckland / Remote

Jun 2025 - Present

- Clarify client and domain requirements, map workflows and translate practical problems into AI and automation prototypes.
- Own prototypes from solution design through Python-based build, model and output testing, deployment and iteration against user requirements.
- Develop applications spanning rule-based document checking, structured-data extraction, conversational AI, RAG and LLM-enabled physical systems.
- Integrate model capabilities with web and application workflows; deploy using AWS and Vercel and troubleshoot through functional validation.

Structural Engineer | CCG Engineers

Mar 2022 - Dec 2024

- Designed structural systems for residential buildings, maintaining accurate quantitative calculations, drawings and supporting documentation.
- Captured client requirements, revised designs in response to feedback and explained technical decisions clearly to clients and project teams.
- Coordinated with councils and contractors on consents, information requests and site issues; identified inconsistencies and supported practical resolution through traceable responses.

Graduate Structural Engineer | Kirk Roberts Consulting

Mar 2021 - Jan 2022

- Supported residential structural design, technical documentation and site inspections while working within New Zealand standards and project procedures.

Graduate Structural Engineer | DDL Homes

Jun 2020 - Dec 2020

- Produced designs and drawings for residential developments, prepared building-consent documentation and inspected designed structural components.

EDUCATION

Master of Artificial Intelligence - First Class Honours | University of Auckland

2025 - 2026

- **Relevant studies:** Applied machine learning and deep learning; natural language processing; AI systems architecture and agentic systems; responsible AI and ethics; AI strategy and management; and applied AI research.

Bachelor of Engineering (Honours) - Civil Engineering | University of Auckland

2016 - 2019

- Second Class Honours, First Division; degree awarded in 2020.
- **Relevant study:** Mathematical modelling, project and innovation management, engineering design, research and capstone projects.

ADDITIONAL INFORMATION

New Zealand citizen | Full driver licence | English and Mandarin (spoken and written)