Titus Velpula

AI DEVELOPER

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PROFILE

AI Developer with a data science background, building, testing, and deploying AI agents, automation workflows and API integrations for business operations. At Celtine Ltd, I work directly with operational teams and business owners to identify automation opportunities and deliver reliable solutions, combining business logic with AI and LLMs where they add value. Hands-on experience with JavaScript, SQL, Python and API integrations. I hold a Master of Analytics (Honours).

KEY ACHIEVEMENTS

Agents in production: Designed and deployed AI agents that classify enquiries, retrieve business data and generate contextual replies, with escalation to staff.

Reduced manual work: Automated sales orders, supplier stock checks, out-of-stock handling and dropship tracking across multiple brands.

Concept to working system: Built social-media automation connecting product data, AI content generation, media rendering, human review and scheduled publishing.

Evaluation and reliability: Built output checks and evaluations to identify failures and compare retrieval accuracy, model performance and cost.

TECHNICAL SKILLS

Development and data	JavaScript, Python, SQL, PostgreSQL, Supabase, Git
AI engineering	Claude and OpenAI APIs, prompt design, tool calling, structured outputs, context management, multi-agent orchestration, RAG, LangChain, Ollama, hybrid BM25 and dense retrieval
Evaluation and observability	Deterministic checks, LLM-as-judge, DeepEval, reference datasets, retrieval testing, human review, execution logging, failure detection, cost and latency monitoring
Integration and infrastructure	n8n, REST/GraphQL APIs, webhooks, authentication, Docker, Linux, Cloudflare Tunnel, credential and environment management, Claude Code, Claude Cowork
Analytics	Power BI, Tableau, Alteryx, Snowflake, MATLAB, SAS, R, statistics

WORK EXPERIENCE

AI Developer · Celtine Ltd

May 2025 to present

- Collaborate with operational staff and business owners to map manual processes, identify the automatable core, and decompose work into steps an agent can own.
- Build AI agents and automation with n8n, JavaScript, APIs and webhooks, applying business rules for predictable processing and Claude/OpenAI models where language understanding and generation add value.
- Automate sales-order processing, supplier stock checks, out-of-stock notifications, dropship tracking and fraud screening by integrating e-commerce, ERP, helpdesk and shipping systems.
- Write evaluations and validate output; investigate production failures and eliminate silent failures; improve prompts, routing and error handling to strengthen reliability.
- Design for failure with graceful degradation and escalation to staff; keep prompts and instructions model-agnostic so providers can be swapped without a rewrite.
- Built and maintain the self-hosted Linux automation server that the company’s live automations run on (Docker, Cloudflare Tunnel, backups, credential management).

PROJECTS

RAG research assistant · Personal project · github.com/TitusDV/rag-research-assistant 2026

- Built an assistant that answers questions about five AI research papers, cites paper and page for every claim, and says when the papers don't cover it (LangChain, OpenAI, Gradio).
- Compared BM25, dense and hybrid retrieval across four chunk sizes on 36 reviewed test questions (best MRR 0.79, hit@5 up to 0.97); traced dense retrieval's drop on long chunks to the embedding model's 256-token limit.
- Built an LLM judge for test-question review that agreed with my own review 94% of the time; tests run on every push with GitHub Actions.

AI social media automation platform · Celtine Ltd 2026 to present

- Built a multi-workflow agent system for content generation, media rendering and publishing across Instagram, Facebook, Threads and TikTok, using product and media data from Magento 2 and a Supabase/PostgreSQL layer.
- Integrate Claude, Creatomate and platform APIs with OAuth token handling, scheduled publishing, evaluation and human review; test media selection, rendering and publishing failures before production rollout.

Telecare RAG chatbot · Personal project · github.com/TitusDV/telecare-rag-chatbot 2024

- Built a document question-answering assistant in Python with LangChain, combining BM25 and sentence-embedding search, with a Gradio interface and a local Llama 3 model (Ollama) or OpenAI.

ADDITIONAL WORK EXPERIENCE

Telecare Monitoring Representative · Hato Hone St John PART-TIME Oct 2023 to present

- Respond to emergency alarms and coordinate with customers, responders and support services; record incidents accurately and make timely escalation decisions under established protocols.

Independent data projects · Self-directed Feb 2022 to 2023

- Built Power BI dashboards for public data challenges while studying analytics and visualisation independently.
- Supported myself through self-employed delivery work (Uber Eats).

Campaign Developer · Digital Alchemy Oct 2021 to Feb 2022

- Built multi-channel marketing campaigns in Unica Campaign using customer segmentation; translated business briefs into campaign logic and completed pre- and post-campaign analysis with Oracle and SQL.

Analytics Specialist · Spark NZ (Skinny Mobile and Broadband) Jan 2021 to Jun 2021

- Built Power BI and Tableau dashboards and automated reporting with Alteryx, SQL and Snowflake; worked with product and marketing teams to turn analysis into practical recommendations.
- Awarded for best customer service.
- Provided thorough analysis and post-launch support for products and plans.

EDUCATION AND CERTIFICATION

Master of Analytics (Honours) · Auckland University of Technology 2023 to 2024

- Studied statistics, machine learning and operations research. Thesis used support vector machines to classify stress from patients' brain EEG data, achieving 89% accuracy and 86.8% cross-validated accuracy, in collaboration with the New Zealand College of Chiropractic.

SAS Certified Specialist: Base Programming Using SAS 9.4

Bachelor of Technology in Computer Science Engineering · Jawaharlal Nehru Technological University, India 2007 to 2011

- Advanced OOP concepts, Database Management, SQL, Mathematics, Statistics.