

AJAY QUIRK

Software Engineer Intern | Third-Year Software Engineering Student

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PROFILE

Third-year Software Engineering student at Victoria University of Wellington with almost three years' hands-on experience as a Software Engineer Intern at Restore Lab, building backend data processing pipelines and geospatial services with Python. Comfortable working across the stack, from data ingestion and database design through to infrastructure and deployment. Currently building KiwiCart, a university project comparing supermarket prices and planning multi-store shopping routes.

TECHNICAL SKILLS

Languages: Python, JavaScript / Node.js, TypeScript, Java, C++

Data & Backend: Pandas, PostgreSQL (schema design), data pipeline engineering, GeoServer

Infrastructure & Tools: Docker, Kubernetes, Kafka, Google Cloud Platform (GCP), self-hosted server administration, Git, Ansible, Terraform, Kafka

EXPERIENCE

Software Engineer Intern — Restore Lab Ltd

Oct 2023 – Present

Wellington, New Zealand

- Developed and maintained a data processing pipeline built on the Google Cloud Platform (GCP), orchestrated with Kubernetes.
- Implemented Kafka to handle streaming/messaging between pipeline stages, enabling reliable data flow from ingestion through to processing.
- Led the transition of the pipeline off GCP onto self-hosted servers, taking on infrastructure ownership end-to-end.
- Built out the pipeline covering the full data journey: from raw compressed binary data through to mappable soil moisture and flood inundation outputs.
- Created custom GeoServer processes to serve and process geospatial data.
- Designed and implemented database schemas within PostgreSQL to support the pipeline.

Student Tutor — Victoria University of Wellington

Feb 2026 – Present

Wellington, New Zealand

- Assisted and ran student labs within the School of Engineering and Computer Science for ENGR101, COMP102, and ENGR110.
- Supported marking of student assignments.

PROJECTS

KiwiCart — University Project

Grocery price comparison & multi-store route planning platform

- Built a platform that compares supermarket prices and generates three shopping route options: cheapest, quickest, and a hybrid balancing both.
- Developed scrapers and data ingestion pipelines to collect pricing data from major New Zealand supermarkets into a PostgreSQL database.
- Designed the database schema to support cross-store product matching and price comparison across multiple supermarkets.

EDUCATION

Victoria University of Wellington

Feb 2024 – Nov 2027

Bachelor of Engineering (BE) with Honours, Computer Software Engineering

Relevant Coursework: System and Network Security (A+), Software Design (A), Intro to Comp Prog Design (A+), Engineering Project Management 1 (A), Clouds and Networking (A-), Software Development (A-)