David Nguyen

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EDUCATION

Victoria University of Wellington

Wellington, New Zealand

July 2022 - June 2025

Bachelor of Commerce in Data Science

• Received Letter of Excellence for outstanding performance in DATA302. View here

EXPERIENCE

Data Science Intern

July 2024 – September 2024

New Zealand Transport Agency - Waka Kotahi

Wellington, New Zealand

- Conducted **analysis of road maintenance data** to identify **correlations** between soil group types and maintenance frequency, which could help **allocate resource more efficiently**
- Developed **predictive linear regression models** to explore counterintuitive trends in road maintenance activities, achieving **83% accuracy** in forecasting maintenance needs.
- Created an **interactive data visualization dashboard** and **heat map** that enabled stakeholders to compare pre and post-COVID freight movement patterns.

Projects

Personal Portfolio Website | Next.js, TypeScript, Tailwind CSS

May 2025 – Present

GitHub Repository

- Developed a modern, responsive portfolio website using **Next.js** with **TypeScript**
- Live Site: davidnguyen.codes

PBTech RAG System (Not affiliated with PBTech) | Flask, React, LangGraph

April 2025 – May 2025

GitHub Repository

- Designed and built a **Retrieval-Augmented Generation system** using **LangGraph** for composable, stateful query workflows and contextual information retrieval.
- Implemented RESTful APIs to interface with vector databases and language models
- Created a responsive **React frontend** to serve the application.
- Live Demo: pbtechrag.onrender.com

Kidney Stone Risk Prediction Research | Data Analysis, Machine Learning

July 2024 – November 2024

GitHub Repository

- Conducted **epidemiological research** using NHANES 2017-2020 data to investigate associations between physiological, demographic, and dietary factors in kidney stone formation.
- Designed and implemented **ensemble machine learning methodology** combining multiple classifiers to predict kidney stone risk with **90.4% accuracy**.
- Performed comprehensive data analysis and feature engineering across 145 variables, revealing significant associations between kidney stones and many conditions like hypertension, gallstones, and specific dietary components.

CERTIFICATIONS

Deep Learning Specialization

November 2024

DeepLearning.AI

Coursera

• View Certificate

Data Engineering Specialization

March 2025

 $AWS \ \ \ \ Deep Learning. AI$

Coursera

• View Certificate

TECHNICAL SKILLS

Data Reporting & BI: PowerBI, DAX, PowerQuery Languages: Python, R, Typescript, Golang, SQL

Tools: Excel, Jupyter, Git, Docker

Cloud/APIs: AWS S3, AWS RDS, AWS EMR

Bakery Assistant

PAK'nSAVE

April 2023 – Present Wellington, New Zealand

- Assisted in daily bakery operations, ensuring all products were prepared according to quality standards and food safety regulations.
- Managed inventory tracking and stock rotation to minimize waste while maintaining product availability.
- Collaborated with team members during high-volume periods to meet customer demands and maintain efficient workflow.
- Provided customer service by answering product queries and offering recommendations based on customer preferences.