ERIN KNOX

EDUCATION

Diploma for Graduates

University of Otago

November 2023 – June 2025

- · Specialisation: Data Science.
- Coursework: Data Science, Software Development, Computer Science, Statistical Analysis

Bachelor of Science with Honours

University of Otago

February 2021 – November 2021

- Microbiology First Class Honours
- Thesis: Data analysis of a large ecological dataset EDA, cleaning, clustering, statistical analysis, report writing
- · Tools: R, RStudio, Bash, NESI Cluster

Bachelor of Science

University of Otago

February 2018 - November 2020

- Major: Microbiology | Minor: History
- Relevant Coursework: Scientific data analysis using R, ecological dataset wrangling, scientific research and reporting

TECHNICAL EXPERIENCE

- Flower Image Classifier and Generator (2025). Built CNN and diffusion models to classify and generate flower images (8000 images, 102 classes). Tools: Python, PyTorch, Bash, Aoraki Cluster
- Raj Playing agent (2024). Developed Reinforcement Learning agent using SoftMax for decision-making. Language: Python
- Various Computer Science Assignments (2023-2025). Solved briefs using recursion, parsing, data structures (e.g., stacks, queues, trees) etc. Languages: Python, Java, C
- Various Data Science Assignments (2023-2025). EDA, data wrangling and management, model fitting and prediction using R, NumPy, Pandas, kNN, CNNs, Reinforcement Learning, linear and logistic regression, K-means, SAS

EMPLOYMENT

Lab Technician

SGS

February 2022 – January 2024

- Prepared and analysed samples per standard operating procedures, independently managing workloads and maintaining data accuracy. Maintained precise data records and demonstrated strong proficiency in laboratory software and databases, including onboarding and training staff on new systems.
- · As 2IC: Led safety briefings, released results, resolved issues, liaised with clients, and trained staff.

Various Part-Time Roles

November 2012 - November 2024

- Roles included: Dining Assistant (University of Otago), Delivery Agent (NZ Post), Web Fulfilment (Briscoes Group),
 Newspaper Delivery Person (Allied Press)
- Key Skills: Customer Service, Teamwork, Communication, Time-Management, Adaptability.

LANGUAGES AND TECHNOLOGIES

Python; R and R Studios; Java; SQL; Bash; SAS; Git; PyTorch; Excel; Tableau (novice)

KEY SKILLS

- **Communication:** Able to communicate clearly and professionally with team members and clients, demonstrated through experience as 2IC at SGS and other customer service-based roles.
- **Critical thinking and problem solving:** Strong analytical and problem-solving skills developed through both academic studies and professional experience.
- Digital literacy: Strong across multiple programming languages and technologies and a variety of databases, developed through studies and work experiences. Quick to adapt to and learn new languages, technologies and systems.

- **Management and organisation:** Proven ability to manage workloads and meet deadlines, shown through a First-Class Honours thesis project and a 2IC role overseeing a team.
- **Teamwork and collaboration:** Effective collaborator with experience working on group projects during tertiary studies and coordinating team operations as 2IC at SGS.