FERGUS CURRIE

Wellington

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Education

Masters of Artificial Intelligence (Distinction)

Feb 2021 – Jul 2022

Victoria University of Wellington

Wellington, NZ

Bachelor of Science in Computer Science, with specialisation in AI

Feb 2018 - Nov 2020

Victoria University of Wellington

Wellington, NZ

Work Experience

CarbonCrop

Nov 2021 - March 2022, July 2022 - Present

Machine Learning Engineer

Nelson, NZ

- CarbonCrop uses remote sensing for land use classification. It helps landowners in New Zealand get paid for carbon their forest sequesters. State of the art deep learning is used to cheaply survey large areas of land, at levels of precision greater than possible by hand.
- Developed deep self-supervised computer vision models for semantic segmentation of RGB and multi-spectral imagery.
- Designed, implemented and maintained CarbonCrop's MLOps infrastructure using AWS, MLFlow and Terraform.
- Developed a tree height model using LIDAR and RGB imagery.
- Assisted in the design, data collection and development of a carbon stock model. This is a semantic segmentation task in which the biomass of each pixel of aerial photography is predicted.
- Worked in an agile environment using Jira.

Lingo Search and AI

Dec 2020 - Apr 2021

Machine Learning Engineer and Data Scientist

Nelson, NZ

- Lingo Search and AI is a consultancy company specialising in search and NLP.
- Pre-processed text data with the NLP library spaCy. This included disambiguation, ENT recognition and stop word removal.
- Assisted in implementing a NoSQL database, Neo4j, for representing scraped news articles as a graph.
- Agile environment using GitLab boards.

Summer Scholar

Nov 2020 - Mar 2021

Researcher

Wellington, NZ

- \bullet Worked with Plant and Food Research Institute to design a breeding program
- Researched multi-objective optimisation for breeding program design in collaboration with Plant and Food Research Institute.
- Literature review of multi-objective optimisation and breeding optimisation.
- Developed a simulation in python and SLiM to simulate evolution of fish population.
- Designed and implemented a multi-objective procedure to optimise size vs genetic diversity.

Extra

Class Representative

2021

2018

400-Level

Victoria University of Wellington

Research Scholarship

2020

300-Level

Victoria University of Wellington

Deans List

2019

100-Level

Victoria University of Wellington

Prefect

Nelson College

Referees

Nick Burns

Senior Machine Learning Engineer at CarbonCrop, Boss at Lingo

Yi Mei

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Supervisor for Masters

Nick Butcher

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CTO at CarbonCrop