Noah Marshall

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linkedin | github | website

Experience

Phyla *2021 Summer*

Machine Learning Intern

- Developed a novel graph neural network for classification of irritable bowel diseases (IBD)
- Increased IBD classification accuracy and Mathew's Correlation Coefficient by 5% and 8% respectively
- Developed a custom cross validation method to reduce batch effects

University of British Columbia *2017-2020*

Research Assistant 2

- Modelled the economic impact of COVID-19 in British Columbia
- Investigated the coupling of disease and opinion dynamics
- Developed a method to optimize the location of bumblebee hives within a crop field

Mathematical Climate Research Network *2019-2020*

Researcher

- Selected to participate in fully funded research project with an international group of students and professors
- Worked within a research team to develop a novel data assimilation method

Education

McGill University *2020-Present*

M.S in Applied Mathematics

- Studying the mathematics of deep neural networks in the Oberman Lab
- Interests include: numerical methods, kernel learning, feature learning

University of British Columbia *2015-2019*

Honours B.Sc in Applied Mathematics with Minor in Data Science

- Honours research in optimization and queuing theory
- Gained strong foundational knowledge in statistics, analysis, numerical methods, and optimization,
- Strong background in data structures, databases, and machine learning methods

Publications

- **Marshall N**, Wyse S, Mahr M, McCrory W, Tyson R. *Modelling Road Mortality in a Western Toad (Anaxyrus boreas) Population (in preparation for submission to Biological Conservation)*
- Tyson R, **Marshall N**, Baumgaertner B. *Transient prophylaxis and multiple epidemic waves*. 2022
- Salvador T, Cairns S, Voleti V, **Marshall N**, Oberman A. *FairCal: Fairness Calibration for Face Verification*. 2021
- Albarakati A, Budišić M, Crocker R, Glass-Klaiber J, Iams S, Maclean J, **Marshall N**, Roberts C, Van Vleck E. *Model and Data Reduction for Data Assimilation: Particle Filters Employing Projected Forecasts and Data with Application to a Shallow Water Model*. 2021
- Barlow M, **Marshall N**, Tyson R. *Optimal shutdown strategies for COVID-19 with economic and mortality costs: BC as a case study*. 2021

Extra

- Awards Received
  - NSERC USRA: 4,500$
  - McGill Graduate Excellence Award: 2 x 1,000 $
  - Loran Scholarships: 4 x 1,750$
- Creator of @poetrybot5 on Twitter. NLP poetry model trained on a dataset I scraped.
- Worked as a zipline guide!