

Niko Yasui

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Education

University of Alberta

Edmonton

Ph.D. Computing Science (incomplete), Advised by Dr. James Wright.

Sep 2019 – Aug 2023

GPA: 4.0. Coursework and research in Game Theory with a focus on Multi-Agent Learning. Left in good standing.

M.Sc. Computing Science, Advised by Dr. Martha White and Dr. Adam White

Sep 2017 – Jan 2020

GPA: 4.0. Thesis: [An Empirical Study of Exploration Strategies for Model-Free Reinforcement Learning](#).

○ Awarded over \$100,000 in scholarships.

McGill University

Montréal

B.Sc. Statistics and Computer Science, GPA: 3.6

Sep 2013 – Apr 2017

Professional Experience

AI Consultant

Edmonton

Artificial.Agency

Jan 2024

- Made a graph forecasting future LLM inference costs for the pitch deck in a \$16M USD seed round.
- Wrote a key report supporting the company's financial thesis while operating on an accelerated timeline.
- Tasks included reviewing literature, aggregating data from disparate sources, and developing predictive models.

Personal Tutor

Edmonton

Self-employed

Jul 2023 – present

- Started a tutoring business for university students that helped over 20 clients reach their academic goals.
- Earned several multi-semester contracts and word-of-mouth recommendations.

Machine Learning Research

Various

Institute for Statistical Mathematics, McGill, University of Alberta

May 2014 – Aug 2023

- Refactored a behavioural game theory analysis program to support automatic differentiation in PyTorch.
- Predicted breast cancer recurrence using a mathematical framework that can be applied to customer churn.
- Created a real-world reinforcement learning demo on an iRobot Create, which ran Robot Operating System and used real-time camera data to perform a learning update every 0.1s.
- Worked in a cross-functional team to write a Python program for imputing missing data in phylogenetic trees and evaluating the quality of the imputation.
- Wrote a Python program that imputed missing SNPs from large datasets of genomic data.

Course Developer

Edmonton

Alberta Machine Intelligence Institute

Jan 2019 – Sep 2019

- Worked in a team to develop a collection of four courses that has reached over 90,000 students.
- Designed teaching assets, wrote scripts, and presented in video lectures.

Leadership and Service

University of Alberta and Alberta Machine Intelligence Institute

Sep 2018 – Aug 2023

- By invitation, mediated a conflict between student groups that had blocked operations for 8 months.
- Co-chaired the University's Suicide Prevention: Education and Awareness subcommittee.
- Advocated for students in department meetings and with external funding organizations.
- Organized a volunteer data science team to serve non-profits, including United Way and City of Edmonton.

Skills

- Python for machine learning (5+ years)
- Excellent visualizations in R, Tableau (3 years)
- Experience with PyTorch, Jax, Rust, Julia, C++, SQL
- Reinforcement learning in simulation and real-world
- Bayesian and frequentist statistical analysis
- Parallelizing large machine learning experiments to run on compute clusters
- Thrives in a collaborative environment
- Detail oriented
- Creative problem-solver