

## Education

### Ph.D. in Computing Science

UNIVERSITY OF ALBERTA

2019 - Present

- » Supervisors: Dale Schuurmans, Marlos C. Machado
- » Research Area: Continual learning, meta learning, reinforcement learning

### M.Sc. in Statistics

UNIVERSITY OF ALBERTA

2016 - 2018

- » Specialization: Statistical Machine Learning
- » Supervisors: Ivor Cribben & Rohana Karunamuni
- » Thesis: Recurrent and Bayesian Kernel Learning for Small Data with Applications to Neuroimaging

### Honours Bachelor in Mathematics

UNIVERSITY OF WATERLOO

2012 - 2016

- » Major: Mathematical Economics

## Papers & Preprints

### The Need for a Big World Simulator: A Scientific Challenge for Continual Learning

S. KUMAR, H. J. JEON, A. LEWANDOWSKI, B. VAN ROY

08/2024

- » Finding The Frame Workshop at RLC (Oral Presentation)

### Learning Continually by Spectral Regularization

A. LEWANDOWSKI, S. KUMAR, D. SCHUURMANS, A. GYÖRGY, M. C. MACHADO

05/2024

- » Submitted

### Curvature Explains Loss of Plasticity

A. LEWANDOWSKI, H. TANAKA, D. SCHUURMANS, M. C. MACHADO

11/2023

- » Preprint

### Reinforcement Teaching

C. MUSLIMANI\*, A. LEWANDOWSKI\*, D. SCHUURMANS, M. TAYLOR, J. LUO

06/2023

- » Transactions on Machine Learning Research

### State and Reward Design: Towards Reinforcement Teaching

A. LEWANDOWSKI\*, C. MUSLIMANI\*, M. TAYLOR, J. LUO

12/2021

- » Ecological Theory of RL Workshop at NeurIPS

### Disentangling Generalization in Reinforcement Learning with Contextual Decision Processes

A. LEWANDOWSKI, D. SCHUURMANS, J. LUO

09/2021

- » Preprint

### ZORB: A Derivative-Free Backpropagation Algorithm for Neural Networks

V. RANGANATHAN, A. LEWANDOWSKI

12/2020

- » Beyond Backpropagation Workshop at Neurips (Oral Presentation)

### Recurrent Open-loop Control in Offline Reinforcement Learning

A. LEWANDOWSKI, D. SCHUURMANS

12/2020

- » Offline Reinforcement Learning Workshop at NeurIPS

### Generalization Across Space and Time in Reinforcement Learning

A. LEWANDOWSKI

12/2020

- » Pre-registration Experiment Workshop at NeurIPS

### Batch and Sequential Policy Optimization with Doubly Robust Objectives

A. LEWANDOWSKI, D. SCHUURMANS

12/2019

- » Optimization Foundations of Reinforcement Learning Workshop at NeurIPS

## Batch Normalized Deep Kernel Learning for Weight Uncertainty

A. LEWANDOWSKI

12/2017

» Bayesian Deep Learning Workshop at NIPS

## Work Experience

### Research Associate, Canadian Research Institute

HUAWEI TECHNOLOGIES CO., LTD.

2022 - 2023

- » Supervisor: Jun Luo
- » Fundamental research on emerging technologies: reinforcement, deep and continual learning.

### Research Associate, Noah's Ark Lab

HUAWEI TECHNOLOGIES CO., LTD.

2021 - 2022

- » Supervisor: Jun Luo
- » Researching auto-curriculum and generalization in reinforcement learning, with applications to autonomous vehicles.

### Teaching Assistant, Department of Computer Science

UNIVERSITY OF ALBERTA

2019 - Present

- » Led discussion groups and designed worksheets for new introductory reinforcement learning course.
- » Mentored students through projects and group assignments for foundations in information retrieval.

### Teaching Assistant, Department of Mathematical and Statistical Sciences

UNIVERSITY OF ALBERTA

2016 - 2018

- » Led help sessions in Introduction to Applied Statistics, Statistics I/II, Applied Regression Analysis and Time Series Analysis.
- » Provided one on one assistance with assignments for first and second year classes at the Decima Robinson Support Centre.

## Honors & Awards

### Alberta Innovates Graduate Student Scholarship

University of Alberta, Department of Computing Science

2022-2024

### President's Doctoral Prize of Distinction

University of Alberta, Department of Computing Science

2021-2024

### NSERC Postgraduate Scholarships - Doctoral

University of Alberta, Department of Computing Science

2021-2024

### Josephine Mitchell Scholarship

University of Alberta, Department of Mathematical and Statistical Sciences

2017-2018

### Profiling Alberta's Graduate Students Award

University of Alberta, Department of Mathematical and Statistical Sciences

2017

### Queen Elizabeth II Graduate Scholarship

University of Alberta, Department of Mathematical and Statistical Sciences

2016

### Term Dean's Honour List

University of Waterloo

2015

### President's Scholarship

University of Waterloo

2012

## Service

### Organizer

Openmind Continual Learning Retreat 2023, ICLR SSBM Social 2021, NeurIPS SSBM Social 2020, ICLR Reinforcement Learning Social 2020,

### Reviewer

RLC 2024, Finding the Frame Workshop at RLC 2024, ICML 2021-2024 (Outstanding Reviewer Award 2022), ICLR 2020-2024 (Outstanding Reviewer Award 2021-2022), NeurIPS 2021-2024 (Top Reviewer Award 2022), ICML RL4RealLife Workshop 2021, NeurIPS Offline RL Workshop 2021, OPTRL Workshop at NeurIPS 2019, TNNLS 2018-2019CIFAR,

### University

Academic Director at Computing Science Graduate Student Association 2022-2023