KEVIN ROICE

kevinroice@outlook.com
kevroi.github.io

RESEARCH INTERESTS

Reinforcement Learning · Planning · Continual Learning

EDUCATION

University of Alberta

2022-2024 — MASTER OF SCIENCE IN STATISTICAL MACHINE LEARNING

GPA: 4.00/4.00
Thesis

Durham University

2019-2022 — BACHELOR OF SCIENCE IN PHYSICS AND COMPUTER SCIENCE

First Class Joint Honours
Ranked 1st/442 in Calculus, and top 5% in Linear Algebra and Theoretical Physics.
Thesis

PUBLICATIONS

JMLR (17% acceptance)

2024 — GOAL SPACE PLANNING WITH SUBGOAL MODELS

Chunlok Lo*, Kevin Roice*, Parham Mohammad Panahi*, Scott M. Jordan, Adam White, Gabor Michuz, Farzane Aminmansour, Martha White
Paper

SIGGRAPH (11% acceptance)

2022 — RENDERING HAPTIC TORQUES FOR VIRTUAL REALITY

Kevin Roice and George Alex Koulieris
Paper | Code

WORK EXPERIENCE

Alberta Machine Intelligence Institute

2024 - — MACHINE LEARNING RESIDENT

Planning, scheduling and graph-based resource allocation for facilities across Edmonton.
Reference: Atefeh SHAHROUDNEJAD · atefeh.shahroudnejad@amii.ca

University of Alberta

2023 - 2024 — GRADUATE RESEARCH ASSISTANT FELLOW

My MSc research focused on temporal abstractions and planning for reinforcement learning agents.
References: Adam WHITE · amw8@ualberta.ca
Martha WHITE · whitem@ualberta.ca

Finbourne Technology

2022 — SOFTWARE ENGINEER INTERN

Improved API and automated internal statistical analyses of the platform performance.
Reference: Emmett MOORE · emmett.moore@finbourne.com

University of Cambridge

2021 — RESEARCH INTERN

Awarded scholarship to develop models that identify blackholes from anomalous star motions in the latest astrometric dataset.
Reference: Semyeong OH · soh@ast.cam.ac.uk

Durham University

2021 — RESEARCH INTERN

Designed an experiment control system for manipulating and scheduling experiments on ultracold atoms.
Reference: Simon L. CORNISH · s.l.cornish@durham.ac.uk

TEACHING

Massachusetts Institute of Technology

2023   TEACHING ASSISTANT

Provided support and guidance for a group of undergraduate fellows on a sea-bed surface reconstruction project with the Seattle Aquarium.
Reference: Antonio TERAN · antonioteran@waymo.com
BLOG

University of Alberta

2022-2023   TEACHING ASSISTANT

Helped deliver and develop CMPUT 101 Introduction to Computing, and CMPUT 267 Basics of Machine Learning.
Reference: Martha WHITE · whitem@ualberta.ca

Google Developer Student Club

2021-2022   MACHINE LEARNING FACILITATOR

Trained hundreds of undergraduates, postgraduates and faculty members, through a public lecture series to teach beginners and improve their career prospects.
SAMPLE LECTURE

Durham University

2021-2022   TEACHING ASSISTANT

Led lab sessions for COMP 2261 Artificial Intelligence. Taught the units on Search, Supervised Learning, and Bias in AI.
Reference: Iain STEWART · i.a.stewart@durham.ac.uk

TALKS

University of Alberta

2024   GOAL-SPACE PLANNING WITH REWARD SHAPING

Public MSc Seminar and Thesis Defence.

ICAPS

2024   A NEW VIEW ON PLANNING IN ONLINE RL

Oral at the Planning and Reinforcement Learning Workshop at the International Conference on Automated Planning and Scheduling.

OTHER INFORMATION

Awards and Achievements

2023 · Alberta Innovates Graduate Student Scholarship (CA $26,000)

2023 · Cornell, Maryland, Max Planck Pre-Doctoral Summer School (CA $2,000)

2023 · Google Computer Science Research Mentee

2022 · Collingwood 1972 Club Undergraduate Grant (CA $2,600)

2021 · University of Cambridge David & Bridget Jacob Summer Scholarship (CA $1,000)

2021 · Collingwood College Undergraduate Research Grant (CA $3,400)

2021 · Durham Outstanding Achievement Award in the Natural Sciences

2020 · Durham Outstanding Achievement Award in Physics

2020 · British Education Awards National Finalist

Service and Outreach

Reviewer · International Conference on Learning Representations 2024, 2025

Reviewer · Reinforcement Learning Conference 2024

Reviewer · Conference on Lifelong Learning Agents 2023

Reviewer · IEEE Transactions on Pattern Analysis and Machine Intelligence 2023

Panellist · Hackathon4Schools 2020

November 11, 2024