Parham Mohammad Panahi

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780-937-1410

Edmonton Alberta Canada

Education

2022 - Present University of Alberta - Edmonton, Canada

M.Sc. in Computing Science (GPA: 4.0/4.0)

Advisor: Adam White

Research Topic: Reinforcement Learning

2016 – 2021 **Azad University** – Tehran, Iran

B.Sc. in Computer Science (GPA: 3.93/4.0) Advisor: Mohammad Ali Fariborzi Araghi

Publications

2023 Goal Space Planning

*Parham M. Panahi, *Kevin Roice, Scott Jordan, Adam White, Martha White. *In preparation.*

Experience

Jan 2023 – Present

Graduate Student University of Alberta

I work on **Reinforcement Learning**; a machine learning paradigm for sequential decision making and control. My current research is focused on speeding up learning by addressing the temporal and structural **Credit Assignment** problem through:

- 1. Agents that construct temporally extended **Models** of their world;
- 2. Agents that store and **Remember Past Experience** as part of the learning process.

Sept 2022 – Present

Contractor Alberta Machine Intelligence Institute (amii)

I Work with Adam White and Alona Fyshe and amii's training team to create AI Everywhere, an introductory AI course for all students at University of Alberta.

Sept 2022 - Apr 2023

Teaching Assistant University of Alberta

Course: CMPUT 175 - Introduction to the Foundations of Computation II Conducted Labs to assist and test students, Marked Labs and Assignments, helped students during Office Hours. Dec 2020 – Sep 2021 **Research Assistant** Azad University

Implemented a Deep Learning Audio/Visual Speech Recognition system for Farsi.

Sept 2018 – Apr 2019 **Teaching Assistant** Azad University

Course: Introductory and Advanced Programming

Conducted Labs and gave supplementary lectures on Programming Paradigms.

Selected Course Projects

Fall 2022 Average Reward Methods in Continuing Control

Empirical study of differential Q-learning on continuing Catch and Pendulum tasks. Instructor: Adam White • Project Report

Fall 2022 Novel Content Generation with Machine Learning

Controlling generation of blended content via genetic algorithm and VQ-VAEs.

Instructor: Matthew Guzdial • Project Report

Honors and Scholarships

2023	University of Alberta FGSR Graduate Travel Award 2023 - 2024
2023	Admitted to the DLRL2023 Summer School Organized by CIFAR/MILA
2022	University of Alberta Graduate Recruitment Scholarship FALL 2022/23
2021	Rank 25 in National Mathematical Olympiad for University Students in Iran

Other Skills

Programming Languages: Python, Julia, C++, and many Machine Learning and Scientific Computing Packages, including Torch, TensorFlow, and Jax.

Languages: English (IELTS band 8), Farsi (native).