

Parham Mohammad Panahi

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Edmonton Alberta Canada

Research Interests

Model-Based Reinforcement Learning • Sample Efficiency • Temporal Abstraction

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: 18.71/20.0)

Mentors: Mohammad Ali Fariborzi Araghi, Amin Mahmoodi.

Selected Coursework

- *University of Alberta*: Reinforcement Learning 2, Reinforcement Learning 1, Procedural Content Generation via Machine Learning.
- *Azad University*: Analysis of Algorithms, Theory of Computation, Real Analysis, Abstract Algebra, Probability Theory, Linear Algebra, Computer Simulation

Honors and Scholarships

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| 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 |
| 2021 | Rank 26 in National Graduate School Entrance Exam in Mathematics in Iran |

Research Experience

- May 2023 – present **Sample Efficiency in Deep Reinforcement Learning**
 Collaborators: Andrew Patterson, Adam White, Martha White
 Topic: Experience Replay
- Jan 2023 – present **Model Based Reinforcement Learning**
 Collaborators: Kevin Roice, Scott Jordan, Adam White, Martha White
 Topic: Planning with Option Models
- Dec 2020 – Sep 2021 **Audio-Visual Speech Recognition**
 Collaborator: Shahed Mohammadi
 Gathered and processed video data for visual speech recognition. Implemented a Lip Reading System for Farsi using STCNNs and LSTMs.

Teaching Experience

- Fall 2022 - Winter 2023 **Teaching Assistant, CMPUT 175: Introduction to the Foundations of Computation II (University of Alberta)**
 Conducted Labs to Assist and Test Students, Assignment Marking, Lab Marking, and Helping Students during Office Hours.
- Fall 2018 - Winter 2019 **Teaching Assistant, Python Programming (Azad University)**
 Conducted Labs and gave Supplementary Lectures.

Industry Experience

- Nov 2021 - July 2022 **Caspian Net Pars (Designer and Producer) Tehran, Iran**
 Designed and Taught Online Courses on the Topics of Programming and Reinforcement Learning.

Community

- 2022 – Present Computing Science Graduate Student Association, University of Alberta

Other Skills

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

Languages: English, Farsi.