# Alireza Kazemipour

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### **EDUCATION**

University of Alberta, Edmonton, Canada

PhD., Computing Science Advisors: Michael Bowling

University of Alberta, Edmonton, Canada

M.Sc., Computing Science<sup>1</sup>

Thesis: Model-Based Exploration in Markov Decision Processes

Advisors: Matthew E. Taylor, Michael Bowling

K. N. Toosi University of Technology, Tehran, Iran

B.Sc., Electrical-Control Engineering

Enrolled: Sep 2015 — Graduated: Sep 2020

Enrolled: Jan 2023 — Graduated: Aug 2025

Enrolled: Sep 2025 — Expected: NA

# RESEARCH INTERESTS

Theoretical understanding of machine learning topics especially around sequential decision-making:

- Reinforcement Learning: Exploration-Exploitation Dilemma, Continual Learning
- Game Theory: Hindsight Rationality, No-Regret Learning
- Online Learning: Online Convex Optimization

### **PUBLICATIONS**

### Model-Based Exploration in Truthful Monitored Markov Decision Processes

Paper

Alireza Kazemipour, Simone Parisi, Matthew E. Taylor, Michael Bowling

In International Conference on Machine Learning (ICML), 2025

Full paper acceptance rate: 26.9%

# Beyond Optimism: Exploration With Partially Observable Rewards

[Paper]

Simone Parisi, Alireza Kazemipour, Michael Bowling

In Advances in Neural Information Processing Systems (NeurIPS), 2024

Full paper acceptance rate: 25.8%

### Monitored Markov Decision Processes

[Paper]

Simone Parisi, Montaser Mohammedalamen, **Alireza Kazemipour**, Matthew E. Taylor, Michael Bowling In Autonomous Agents and Multi-Agent Systems (AAMAS), 2024

Full paper acceptance rate: 25%

#### RESEARCH EXPERIENCE

# Graduate Research Assistant, Department of Computing Science

Mar 2023 - Present

University of Alberta, Edmonton, Canada

- A member of:
  - Alberta Machine Intelligence Institute (Amii)
  - Reinforcement Learning and Artificial Intelligence Lab (RLAI Lab)
  - Intelligent Robot Learning Lab (RIL Lab)
- Doing research in the area of reinforcement learning in the face of partially observable rewards

### Under Graduate Research Assistant, KN2C Robotics Team

Sep 2017 - Jul 2019

K. N. Toosi University of Technology, Tehran, Iran

• Developed computer vision algorithms suitable for indoor drones to navigate through a prespecified path autonomously without the pilot's aid.

### TEACHING EXPERIENCE

• Teaching Assistant, Machine Learning I (CMPUT267) University of Alberta, Edmonton, Canada Sep-Dec 2025

Instructor: Volodymyr Tkachuk

<sup>&</sup>lt;sup>1</sup>Courses: Reinforcement Learning II: A, Modeling Strategic Behavior: A, Theoretical Foundations of Machine Learning: C+, Optimization and Decision Making under uncertainty: A+.

- Office hours for helping students
- Marking assignments and proctoring final/midterm exams for more than 300 students
- Teaching Assistant, **Introduction to Reinforcement Learning** (CMPUT365)

  University of Alberta, Edmonton, Canada

  Instructor: Csaba Szepesvári
  - Conducting tutorial sessions and holding office hours for helping students
  - Designing assignments and final/midterm exams for more than 180 students
- Teaching Assistant, **Search and Planning in AI** (CMPUT366) University of Alberta, Edmonton, Canada
  - Conducting monthly lab sessions for helping students
  - Marking assignments and final/midterm exams for more than 120 students
- Teaching Assistant, Fundamentals of Computer Vision

K. N. Toosi University of Technology, Tehran, Iran Instructor: Behrooz Nasihatkon

- Conducting oral assignments/exams
- Designing an assignment on using classic statistical learning methods for the digit classification problem
- Teaching Assistant, Signals and Systems

Sep 2019 - Feb 2020

Instructor: Dr. Maryam mohebbi

Jan-Apr 2023, 2024

Feb-Jul 2020

Instructor: Levi Lelis

K. N. Toosi University of Technology, Tehran, Iran

- Conducting weekly lab sessions
- Marking assignments

## Community Service

• Reviewer, ICML Feb 2025

• Vice President, Computing Science Graduate Students' Association
University of Alberta, Edmonton, Canada

May 2023 - April 2024

- Organized the welcome event for more than 110 newly admitted graduate student plus more than 60 senior students
- Organizing monthly recreational activities for students, including but not limited to:
  - \* Group trip to Waterpark @ West Edmonton Mall,
  - \* Group trip to tickets for Taste of Edmonton
  - \* Group trip to Activate
  - \* Annual BBQ gathering of the department of Computing Science
- Co-Organizer, RLAI Tea Time Talks

Jun - Aug 2023

- University of Alberta, Edmonton, Canada
- Preparing refreshments for in-person audience
- Preparing a stable remote connection for remote audience and recording the meeting
- Co-Organizer, Introduction to JAX library workshop

Jan 2024

Alberta Machine Learning Institute, Edmonton, Canada

- Disseminating the event's details to the graduate students of the Computing Science department @ UofA
- Inviting and organizing panelist
- Preparing the overview of the contents that panelist should present and discuss

#### Honors and Awards

• Mary Louise Imrie Graduate Student Award.

\$2000

University of Alberta, Edmonton, Canada

• 3rd place in the Unmanned Aerial Vehicle League among 16 teams.

 $[{\bf Certificate}]$ 

The RoboCup Iran Open Competitions

2018

2025

### **Talks**

 $\bullet$  Model-Based Exploration in Truthful Monitored Markov Decision Processes

Workshop on Advances in Machine Learning Theory, Upper Bound, Edmonton, Canada

[Webpage] May 2025

• Optimism & Mon-MDPs

[Video]

Tea Time Talk, RLAI lab and Amii, Edmonton, Canada

Jul 2024