

Amirhossein Rajabpour

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🏠 [amirhossein-rajabpour.github.io](#)

Research Interests	Reinforcement Learning, Deep Learning, Representation Learning, Program Synthesis	
Education	University of Alberta	Edmonton, Canada
	M.Sc. of Computing Science	2023 – Expected 2025
	Supervisors: Levi Lelis & Sandra Zilles , GPA: 3.8	
	Amirkabir University of Technology (Tehran Polytechnic)	Tehran, Iran
	B.Sc. of Computer Engineering	2018 – 2023
	Major in Artificial Intelligence, Minor in Computer Networks, GPA: 3.96/4	
Publications	Common Benchmarks Undervalue the Generalization Power of Programmatic Policies. Amirhossein Rajabpour, Kiarash Aghakasiri, Sandra Zilles, Levi Lelis. NeurIPS Track Position (under review), 2025. [PDF]	
Research Experience	Research Assistant University of Alberta	May 2024 – Present
	Research on generalization power of neural policies vs programmatic ones on current influential benchmarks. Supervised by Levi Lelis and Sandra Zilles . [Link]	
	Individual Study Course Project University of Alberta	Jan 2023 – Apr 2024
	Worked on various ways—Implemented hill-climbing search, hill-climbing with exploration, and genetic algorithm—to improve the work UNVEILING OPTIONS WITH NEURAL DECOMPOSITION . Supervised by Levi Lelis .	
	Reinforcement Learning 1 Course Project University of Alberta	Sep – Dec 2023
	Compared generalization power of an expert agent that concentrates resources on a single task with a generalist agent that splits them across tasks, evaluating PPO, DQN, and APPO across various environments, MiniGrid scenarios, and budgets [Project Report].	
	Bachelors Thesis Amirkabir University	Mar – May 2023
	Face aging platform using generative models e.g. CycleGAN and reversible models. Supervised by Mohammad Rahmati . [link]	
	Research Assistant Amirkabir University	Feb – Jun 2022
	Supervised by Hamed Farbeh . Working on portfolio asset allocation using reinforcement learning and graph neural networks. I was responsible for implementing a graph convolutional network from a time series dataset.	
	Technical Advisement - Project Validation Alberta Machine Intelligence Institute (Amii)	Sep – Oct 2024
Work Experience	Conducting research on advanced AI/ML methods to enhance real-time intrusion detection and anomaly detection in high-speed network storage infrastructures. Focused on improving threat detection accuracy and scalability in multi-cloud environments.	

Machine Learning Engineer | R&D Dept. of Crouse PJS Co. Oct 2021 – Jan 2022
 Designed a light model using classical ML algorithms to detect malfunctioning LEDs by localizing them, clustering light pixels with fuzzy C-means, extracting luminance and wavelength, and applying regression models for each LED color.

DevOps Engineer Intern | Graph Co. Nov 2020 – Apr 2021
 Working with Docker, Minikube, and other backend technologies

Technical Skills

Programming Languages: Python, C, Java, Kotlin, Octave
Artificial Intelligence: Tensorflow, Pytorch, Keras, Scikit learn, Fastai
OS: Windows, Linux (Ubuntu), MacOS
Database Systems: MySQL, PostgreSQL, MongoDB
Web Development: Django, Flask, HTML, CSS
Miscellaneous: Git, OpenCV, Docker, Jira, Selenium, Xampp

Teaching Assistant

University of Alberta
 CMPUT 366 | Search & Planning in AI | Instructor: [Levi Lelis](#) Fall 2024, Winter 2025
 CMPUT 291 | Intro to File and Database Management | Instructors: [Davood Rafiei](#), [Arash Dargahi Nobari](#) Fall 2023, Winter 2024

Amirkabir University of Technology
 Principles of AI | Instructor: [Mahdi Javanmardi](#) Fall 2022
 Cloud Computing | Instructor: [S.Ahmad Javadi](#) Fall 2022
 Internet of Things | Instructor: [Siavash Khorsandi](#) Fall 2022
 Algorithm Design | Instructors: [A. Bagheri](#), [S. Shirali-Shahreza](#) Winter 2022, Fall-Winter 2021

Honors and Awards

Master's Admissions: Fully funded admission to UofA CS, ECE and Radiology & Diagnostic Imaging programs and University of Western Ontario CS program 2023
Bachelor's Scholarship: Awarded a 4-year scholarship from Amirkabir University of Technology 2019-2023
University Entrance Exam: Achieved top 1% place among more than 140,000 applicants of the Nationwide Mathematics University Entrance Exam 2018

Grad Courses

– Reinforcement Learning 1 (Marlos Machado) – Machine Learning (Lili Mou)
 – Modelling Strategic Behavior (James Wright) – Reinforcement Learning 2 (Rich Sutton)

Language Skills

Persian: Native
English: TOEFL iBT: 109 (R: 26, L: 28, S: 26, W: 29)
German: Professional Working Proficiency (B2)