

HAFEZ GHAEMI

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Last updated: August 31, 2024

EDUCATION

Ph.D. | *Computer Science*

Aug. 2023 – Present

Mila - Université de Montréal; **GPA:** 4.13/4.0

Montreal, QC, Canada

- **Advisors:** Eilif Muller, Shahab Bakhtiari; **Doctoral Committee:** Aaron Courville, Pascal Vincent

M.Sc. | *Computer Engineering, AI and Robotics*

Sep. 2020 – Aug. 2023

University of Tehran; **GPA:** 18.0/20.0, North American: 3.72/4.0

Tehran, Iran

- **Advisors:** Hamed Kebriaei, Majid Nili; **Thesis:** Cumulative Prospect Theory in Multi-Agent Reinforcement Learning and Markov Games ([paper](#)) ([code](#))

M.Sc. | *Data Science and Engineering*

Sep. 2020 – July 2022

Politecnico di Torino; **GPA:** 26.3/30.0 (103/110), North American: 3.7/4.0

Turin, Italy

- **Advisors:** Fabio Fagnani, Giacomo Como; **Thesis:** Decentralized Value-Based Reinforcement Learning in Stochastic Potential Games ([link](#)) ([code](#))

B.Sc. | *Major: Mechanical Engineering, Minor: Computer Engineering*

Sep. 2016 – Sep. 2020

University of Tehran; **GPA:** 16.24/20.0, North American: 3.35/4.0

Tehran, Iran

- **Advisor:** Masoud Shariat Panahi; **Thesis:** Design and Implementation of A Smart Camera Slider Controller with Deep Reinforcement Learning ([code](#))

PUBLICATIONS

- [AAMAS] **H. Ghaemi**, H. Kebriaei, A. R. Moghaddam, and M. Nili Ahmaddabadi. "Risk-Sensitive Multi-Agent Reinforcement Learning in Network Aggregative Markov Games", Proceedings of the 23rd International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2024. ([link](#)), ([preprint](#)), ([poster](#)) ([code](#))
- M. Nouri*, F. Moradi*, **H. Ghaemi***, A. M. Nasrabadi, "Towards real-world BCI: CCSPNet, a compact subject-independent motor imagery framework", Digital Signal Processing, 2023. *: equal contribution. ([link](#)), ([preprint](#)), ([code](#))
- **H. Ghaemi***, E. Mirzaei*, M. Nouri*, and S. R. Kheradpisheh "BioLCNet: Reward-modulated Locally Connected Spiking Neural Networks", International Conference on Machine Learning, Optimization, and Data Science, 2022. *: equal contribution. ([link](#)), ([preprint](#)) ([code](#))

PREPRINTS

- **H. Ghaemi**, S. Jamshidi, M. Mashregi, M. Nili Ahmaddabadi, and H. Kebriaei, "Risk Sensitivity in Markov Games and Multi-Agent Reinforcement Learning: A Systematic Review", arXiv:2406.06041, 2024. ([link](#))
- A. Saibene, **H. Ghaemi**, and E. Dagdevir, "Deep Learning in Motor Imagery Eeg Signal Decoding: A Systematic Review", Available at SSRN 4592138, 2023. ([link](#))

ACADEMIC SERVICE

- **Reviewed for:** [\[NeurIPS\]](#) - [\[IEEE-TCYB\]](#) - [\[IEEE-TSMC\]](#)

EXPERIENCE

Teaching Assistant Mila - Université de Montréal	Fall 2024 Montreal, QC, Canada
• Fundamentals of Machine Learning Course; instructors: <u>Ioannis Mitliagkas</u> , <u>Dhanya Sridhar</u>	
Research Assistant Mila - Université de Montréal	Aug. 2023 – Present Montreal, QC, Canada
• Architectures of Biological Learning Lab (<u>ABL</u>); PI: <u>Eilif Muller</u> • Systems Neuroscience and AI Lab (<u>SNAIL</u>); PI: <u>Shahab Bakhtiari</u>	
Teaching Assistant NeuroAI and Computational Neuroscience Courses, <u>Neuromatch Academy</u>	Recurrent contracts since July 2023 Remote
Teaching Assistant School of ECE, University of Tehran	Feb. 2023 – July 2023 Tehran, Iran
• Neural Networks Course; instructor: <u>Ahmad Kalhor</u> • Game Theory Course; instructor: <u>Hamed Kebriaei</u>	
Research Assistant School of ECE, University of Tehran	Oct. 2022 – Aug. 2023 Tehran, Iran
• Smart Networks Lab; PI: <u>Hamed Kebriaei</u> , • Cognitive Systems Lab; PI: <u>Majid Nili</u>	
Undergraduate Research Assistant School of Mechanical Engineering, University of Tehran	Nov. 2019 – Aug. 2020 Tehran, Iran
• AI in Mechanical Engineering Lab; PI: <u>Masoud Shariat Panahi</u>	
Summer Intern Biorobotics Lab, School of Mechanical Engineering, University of Tehran	July 2019 – Sep. 2019 Tehran, Iran
Undergraduate Teaching Assistant School of Mechanical Engineering, University of Tehran	Sep. 2019 – Jan. 2020 Tehran, Iran
• Materials Science Course; instructor: <u>Ghader Faraji</u>	

SKILLS

Languages: English (fluent), Persian (native), French (intermediate), Italian (basic), Arabic (basic)
Programming (ordered by decreasing proficiency): Python, MATLAB, C/C++, Java, SQL, MongoDB, Julia, R
Deep learning frameworks (ordered by decreasing proficiency): PyTorch, Keras/TensorFlow, JAX
Miscellaneous: HPC, Git, microcontroller programming

AWARDS AND HONORS

Ranked 10 in the 25th Iranian Scientific Olympiad for University Students in Computer Engineering	Feb. 2021
<u>TOPoliTo Scholarship</u> Awarded to Politecnico di Torino's top international students	Oct. 2020 - Sep. 2022
Iran's National Elites Foundation Membership Awarded for excellent performance in the Iranian University Entrance Exam	Sep. 2016