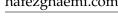


Hafez Ghaemi 🕩

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Last updated: March 4, 2022

Areas of interest: bio-plausible and brain-inspired learning - neural networks and computational neuroscience - reinforcement learning - game theory

EDUCATION

M.Sc. | Data Science and Engineering (Program taught in English)

Sep. 2020 - July 2022

Polytechnic University of Turin,

Current GPA (92 of 110 ECTS): 26.5/30.0, North American: 3.75/4.0

Turin, Italy

• Thesis: A Decentralized Reinforcement Learning Approach for Graphical Game Theory Advisors: Fabio Fagnani, Ph.D., Giacomo Como, , Ph.D

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

Sep. 2016 – Sep. 2020

University of Tehran,

Overall GPA: 16.24/20.0 (3.35/4.0), Major: 16.24 (3.3), Minor: 16.26 (3.4)

Tehran, Iran

• Thesis: Design and Implementation of a Smart Camera Slider Controller Using Deep Reinforcement Learning (code)

Advisor: Masoud Shariat Panahi, Ph.D.

UNDER REVIEW

- **Ghaemi H**, Mirzaei E, Nouri M, Kheradpisheh SR. BioLCNet: Reward-modulated Locally Connected Spiking Neural Networks, arXiv preprint (code)
- Nouri M, Moradi F, Ghaemi H, Nasrabadi AM. Towards Real-World BCI: CCSPNet, A Compact Subject-Independent Motor Imagery Framework, arXiv preprint (code)

EXPERIENCE

Undergraduate Research Assistant

November 2019 – August 2020

Artificial Intelligence in Mechanical Engineering Lab, University of Tehran

Tehran, Iran

- Member of the project team developing a mobile application that monitors human neck posture using front camera input and head pose estimation.
- Principal investigator: Masoud Shariat Panahi, Ph.D

Summer Intern July 2019 – September 2019

Biorobotics Lab, School of Mechanical Engineering, University of Tehran

Tehran, Iran

Programming educational robots, design of dynamic mechanisms using CAD

Undergraduate Teaching Assistant

September 2019 – January 2020

Materials Science Course, School of Mechanical Engineering, University of Tehran

Tehran, Iran

- Lecturing, solving extra problems, grading homework
- Instructor: Ghader Faraji, Ph.D

Languages: English (fluent), Persian (native), Arabic (basic), Italian (basic)

Programming (ordered by decreasing proficiency): Python, MATLAB, C/C++, SQL, MongoDB, Julia, R, Java **Machine learning frameworks (ordered by decreasing proficiency):** PyTorch, Scikit-Learn, Keras, Tensorflow **Other soft and hard skills:** Linux, Git, Raspberry Pie, Arduino, Simulink, SolidWorks

CERTIFICATES

Reinforcement Learning Specialization (link) October 2021 Coursera, University of Alberta & Alberta Machine Intelligence Institute Deep Learning Specialization (link) May 2021 Coursera Graduate Record Examinations (GRE): Q: 170, V: 162, W: 4.00 (link) November 2019 **Educational Testing Service (ETS)** IELTS Academic: R: 9.0, L: 8.0, W: 7.0, S: 7.0 (link) October 2021 International English Language Testing System SELECTED ACADEMIC PROJECTS Fine-tuning BERT for Multi-lingual Hate Speech Detection and Text Classification (code) | Python Fall 2021 Deep Natural Language Processing Course, Polytechnic University of Turin A Hybrid Rule-based/Q-learning Hanabi Agent (code) | Python Fall 2021 Computational Intelligence Course, Polytechnic University of Turin Problems on Flow Optimization, Markov Chains, and Epidemic Models (code) | Python Fall 2021 Network Dynamics and Learning Course, Polytechnic University of Turin Music Genre Classification using CRNN and Transfer Learning (code) | PyTorch Spring 2021 Machine Learning and Deep Learning Course, Polytechnic University of Turin Comparison of ML methods for Facial and Emotional Recognition on JAFFE dataset (code) | Python | Spring 2021 Mathematics in Machine Learning Course, Polytechnic University of Turin Stock Portfolio Management Using Deep Q-Learning (code) | PyTorch Spring 2020 Interactive Learning Course (Audit), University of Tehran Applications of Krylov methods, PCA, and SVD in real-world problems (code) | Python Fall 2021 Computational Linear Algebra Course, Polytechnic University of Turin Waterfilling Power Allocation and LZSS Lossless Compression (code) | MATLAB Fall 2021 Information Theory Course, Polytechnic University of Turin Object-oriented Design and Implementation of a Basic E-commerce Website (code) $\mid C++$ Fall 2019 Advanced Programming Course, University of Tehran AWARDS TOPolito Scholarship Oct. 2020 - Sep. 2022 Awarded to Polytechnic University of Turin top international students Iran's National Elites Foundation Membership Sep. 2016

RELEVANT COURSES

• Machine Learning and Deep Learning (Graduate): 4/4

Awarded for excellent performance in the Iranian University Entrance Exam

- Network Dynamics and Learning (Graduate): 4/4
- Deep Natural Language Processing (Graduate): 4/4
- Mathematics in Machine Learning (Graduate): 4/4
- Big Data (Graduate): 4/4

- Computational Linear Algebra (Graduate): 4/4
- Game Theory (Graduate): 4/4
- Information Theory (Graduate): 3/4
- Artificial Intelligence (Undergraduate): 4/4
- Advance Programming (Undergraduate): 4/4
- Optimization of Mechanical Systems (Undergraduate): 4/4

- Numerical Computation (Undergraduate): 4/4
- Engineering Mathematics (Undergraduate): 4/4
- Interactive (Reinforcement) Learning (Graduate): Audit
- Introduction to Cognitive Science (Graduate): Audit
- Computational Neuroscience (Graduate): Audit

PERSONAL INTERESTS

Podcasts, classic novels, psychological thrillers and hard sci-fis, philosophy, chess, travelling