# Seyed Roozbeh Razavi Rohani

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Web Address

#### **EDUCATION**

• M.Sc. in Computer Engineering-Artificial Intelligence and Robotics Tehran, Iran
Sharif University of Technology Sept. 2019 - Jan. 2022

GPA: 18.86/20 (4/4)

Thesis Title: Brian-inspired Meta Reinforcement Learning Using Brain-inspired Networks

Supervisor: Prof. Mahdiyeh Soleymani Baghshah

B.Sc. in Computer Engineering-Software Engineering Shiraz University

Shiraz, Iran

Sept. 2014 - May 2019

GPA: 16.90/20 (3.33/4)

The Last 60th Credits GPA: 18.78/20 (3.95/4)

Thesis Title: Big Data Approach to Extract High-Level Information from Shiraz University

Database (20/20)

Advisor: Prof. Hooman Tahayori

#### RESEARCH INTEREST

- Deep Learning
- Reinforcement Learning
- Meta & Continual Learning
- Neuro-inspired AI & Computational Neuroscience
- Robotics & Optimal Control Theory
- Multi-agent systems & Algorithmic Game Theory

# **PUBLICATIONS**

1. Seyed Roozbeh Razavi Rohani, Saeed Hedayatian, and Mahdiyeh Soleymani Baghshah. BIMRL: Brain Inspired Meta Reinforcement Learning. In 2022 IEEE/RSJ international conference on intelligent robots and systems (IROS), Kyoto, Japan, October 2022. IEEE

#### **AWARDS & HONORS**

- Ranked within top the 20% highest GPA among the graduating class in M.Sc. computer engineering program at Sharif University of Technology
- Selected as a qualified person at the first stage of Iranian National Olympiad in Informatics (university students competition)
- Ranked 3<sup>th</sup> among more than 20,000 participants in annual Iranian University Entrance Exam for masters degree in artificial intelligence and robotics
- Offered Straight Admission in Artificial Intelligence and Robotics M.Sc program at Shiraz University (declined)
- Ranked within top the 15% highest GPA among the graduating class in B.Sc. computer engineering program at Shiraz University
- Ranked within the top 1% among more than 300,000 participants in annual Iranian University Entrance Exam

# **TEACHING EXPERIENCES**

Teacher Assistant (TA) for 'Advance Machine Learning' Sharif University of Technology, Tehran, Iran Presented by: Prof. Mahdiyeh Soleymani Baghshah	Jan. 2022- July 2022
Teacher Assistant (TA) for 'Deep Learning' Sharif University of Technology, Tehran, Iran Presented by: Prof. Hamid Beigy	Sep. 2021 - Dec. 2021
Teacher Assistant (TA) for 'Modern Information Retrieval' Sharif University of Technology, Tehran, Iran Presented by: Prof. Mahdiyeh Soleymani Baghshah	Jan. 2021 - July 2021
Teacher Assistant (TA) for 'Artificial Intelligence' Shiraz University, Shiraz, Iran Presented by: Prof. Zohre Azimifar	Jan. 2020 - July 2020
Teacher Assistant (TA) for 'Linear Control Theory' Shiraz University, Shiraz, Iran Presented by: Prof. Mansoor Zolghadri Jahromi	Jan. 2020 - July 2020
Teacher Assistant (TA) for 'Microprocessor' Shiraz University, Shiraz, Iran Presented by: Prof. Mohsen Raji	Sep. 2018 - Jan. 2019

Dec. 2019 - Jan. 2022

#### RESEARCH WORKING EXPERIENCES

Research Assistant in Machine Leaning Lab (MLL)

Sharif University of Technology, Tehran, Iran Supervised by Prof. Mahdieh Soleymani Senior Programmer April 2017 - A

ICT Center of Shiraz University

Extract and visualize high-level information using Big Data tools (Apache Spark & Spring Boot)

# **SKILLS**

- **Programming Languages:** Python, Java, C, C++, C#, MATLAB, PHP, JavaScript, Assembly (x86), LATEX
- Deep Learning Frameworks: PyTorch, Keras, TensorFlow, Caffe, MATLAB Deep Learning toolbox
- Python Package & Library: NumPy, Pandas, Scikit-learn, Matplotlib
- Other Frameworks & tools: Apache Spark, Spark Java, Spring Boot, Django, Laravel, Angular, Neo4j, MongoDB
- Software: SPSS ,Proteus ,CodeVisionAVR, Microsoft Office
- Operating Systems: Windows, Linux (Ubuntu)

# **SELECTED COURSES**

#### Graduate

- Deep Learning, Prof. Soleymani, 19.1/20
- Stochastic Processes, Prof. Rabee, 17.2/20
- Neuroscience: Learning and Memory, Prof. Karbalaee, 20/20

#### Undergraduate

- Artificial Intelligence, Prof. Azimifar, 19.1/20
- Operational Research, Prof. Ziarati, 18/20
- Linear Control Theory, Prof. Zolghadr, 18.5/20
- Signals and Systems, Prof. Bostani, 20/20

# SELECTED PROJECTS

- Implementation of Hopfield Network using spiking neural networks to retrieve and denoise patterns, as the final project for Neuroscience: Learning and Memory course, fall 2020
- Implementation of image captioning and caption comprehension through LSTM and Faster R-CNN networks, benchmarked on MS COCO dataset, as the final project for Deep Learning course, Spring 2020

- Implementation of Speech Recognition and character-based LVCSR with RNN Networks according to "End-to-end Attention-based Large Vocabulary Speech Recognition," paper, as the final project for Speech Processing course, Spring 2020
- Implementation of epileptic/normal classifier based on EEG signal, using wavelet coefficients as features and RBF networks as the learnable classifier, the final project for Digital Signal Processing course, fall 2019

#### **LANGUAGES**

Persian: Native English: Fluent

- TOEFL iBT: Will be taken at October 9th, 2022

# **ONLINE COURSES, CERTIFICATES & MEMBERSHIPS**

• Game Theory, Prof. O. Jackson, Coursera	2021
• Robotics: Aerial Robotics, Prof. Kumar, Coursera	2021
• Convex Optimization, Prof. Boyd, edX	2019
• Neuronal Dynamics, Prof. Gerstner, edX	2019
$\bullet$ Computational Neuroscience: Neuronal Dynamics of Cognition, Prof. Gerstner, edX	2019
• Mathematics for Machine Learning: Linear Algebra, Prof. Dye, Coursera	2018
• Member of IEEE Robotics and Automation Society	2022-present
• Member of National Elite Foundation	2019-present

# **REFERENCES**

1. Prof. Mahdiyeh Soleymani Baghshah: soleymani@sharif.edu

2. Prof. Reza Boostani: boostani@shirazu.ac.ir

3. Prof. Koorush Ziarati: ziarati@shirazu.ac.ir