Matin Moezzi

matin.moezzi@mail.utoronto.ca matinmoezzi.github.io github.com/matinmoezzi

Education

2022 – Present **Master of Applied Science, Mechanical and Industrial Engineering Department, University of Toronto**

2016 – 2021 **Bachelor of Computer Science—Minor in Mathematics, Department of Mathematics & Computer Science, Amirkabir University of Technology (Tehran Polytechnic)** – Selected Courses GPA: 4.0/4.0

Research Experience

2022 **Transfer Reinforcement Learning in Robotic Systems**
Developing a set of algorithms aiming to transfer the learned policy in the simulation to the real robotic system (Sim-to-real transfer problem)
Dynamic Optimization & Operations Management Lab – University of Toronto
Under Supervision of **Prof. Chi-Guhn Lee**

2021 **Data-Efficient Hierarchical Reinforcement Learning using Importance Sampling** [PDF][Code]
Developed an approach to improve data-efficiency of the hierarchical deep Q network algorithm (h-DQN) using the importance sampling method.

2021 **An Uncertainty-Aware Pseudo-Label Selection Framework using Regularized Conformal Prediction** [PDF][Code]
Employing uncertainty sets yielded by the conformal regularization algorithm in the uncertainty-aware pseudo-label selection framework to fix the poor calibration neural networks, reducing noisy training data.

2020 **Solving the System of ODEs of the Control Spread of Ebola Virus Epidemic using Deep Neural Networks** [Code]
Faculty of Mathematics and Computer Science – Amirkabir University of Technology
Under Supervision of **Prof. Mostafa Abbaszadeh**

2020 **Adding the L-BFGS Support for Training DNNs to the *NeuroDiffEq* package** [Code]

Teaching Experience

Neural Networks (Graduate Level), Teaching Assistant, Faculty of Electrical Engineering, Amirkabir University of Technology, Spring 2021 — Under Supervision of **Prof. M. B. Menhaj**

Numerical Linear Algebra, Teaching Assistant, Faculty of Mathematics & Computer Science, Amirkabir University of Technology, Spring 2020 — Under Supervision of **Prof. Mostafa Abbaszadeh**

Operating Systems, Teaching Assistant, Faculty of Computer Science, Amirkabir University of Technology, Fall 2019, Spring 2020, Spring 2021 — Under Supervision of **Prof. H. Nourikhah**

Computer Networks, Teaching Assistant, Faculty of Computer Engineering, Amirkabir University of Technology, Spring 2020 — Under Supervision of **Prof. M. Sabaei**

Work Experience

2018 – 2019 **Software Developer**, iTours Online Travel Agency Co., Tehran, Iran

Implemented enterprise B2B SOAP & Restful Web Services

Developed Asp.Net Core Web Apps & Web APIs

2017 – 2018 **Web Developer**, Parsian Insurance Co., Tehran, Iran

Effectively refactored previous projects based on Design Patterns & SOLID principles
Successfully Developed an Asp.Net web application for the insurance management system

Online Degrees & Courses

Artificial Intelligence Nanodegree Peter Norvig & Sebastian Thrun, Udacity [See the Certificate]

Reinforcement Learning Specialization, University of Alberta, Coursera [See the Certificate]

Practical Reinforcement Learning (with honors), HSE, Coursera [See the Certificate]

Deep Learning Specialization, Andrew Ng, deeplearning.ai, Coursera [See the Certificate]

Cutting-Edge AI: Deep Reinforcement Learning in Python, Udemy [See the Certificate]

Natural Language Processing Specialization, deeplearning.ai, Coursera [See the Certificate]

TensorFlow Developer Specialization, deeplearning.ai, Coursera [See the Certificate]

Machine Learning, Andrew Ng, Stanford University, Coursera [See the Certificate]

Network Function Virtualization, Georgia Institute of Technology, Coursera [See the Certificate]

Software Defined Networking, The University of Chicago, Coursera [See the Certificate]

Generative Adversarial Networks Workshop,
Amirkabir Artificial Intelligence Summer Summit 2020 [See the Certificate]

Skills

Software Programming: .Net/ Asp.Net, Microservices, SOLID Principles, SOAP & Restful Web Services

Computer Network: TCP/IP, SDN & NFV, Mininet Emulator, Wireshark, Boson

Programming Languages: C/C++, Python, MATLAB, R, Java, C#, SQL, Javascript

Libraries: Pandas, Scikit-learn, PyTorch, TensorFlow, Keras, OpenAI Gym, Nvidia Omniverse IsaacSIM & IsaacGym

Others: Linux Server Administration, Bash Scripting, MySQL, LaTeX, Git, Raspberry Pi, ROS

Activities

Editorial Board Member of Student Scientific Journal, Mathematics & Computer Science Faculty
Amirkabir University of Technology, 2020 - Present

References

Prof. Chi-Guhn Lee, Full Professor, Department of Mechanical and Industrial Engineering, University of Toronto
cglee@mie.utoronto.ca

Prof. Mohammad B. Menhaj, Full Professor, Department of Electrical Engineering, Amirkabir University of Technology (Tehran Polytechnic), Iran, menhaj@aut.ac.ir

Prof. Mostafa Abbaszadeh, Assistant Professor, Department of Mathematics & Computer Science, Amirkabir University of Technology (Tehran Polytechnic), Iran, m.abbaszadeh@aut.ac.ir

Last Updated on June, 2022