Matin Moezzi

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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)

Research Experience

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 pseudolabel selection framework to fix the poor calibration neural networks, reducing noisy training data.

2020 (I) Applying Deep Reinforcement Learning to Solve Control Problems Described by a System of Delay Differential Equations (DDEs)

Computational Intelligence & High Dimensional Systems Lab.

Faculty of Electrical Engineering, Amirkabir University of Technology

Under Supervision of Prof. Mohammad B. Menhaj

(II) Solving the System of ODEs of the Control Spread of Ebola Virus

Epidemic using Deep Neural Networks

[Code]

Faculty of Mathematics and Computer Science

Under Supervision of **Prof. Mostafa Abbaszadeh**(III) 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

Designed and Implemented enterprise 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 Developed Asp. Net web applications for the insurance management system Developed front-end side of web applications with HTML, CSS & Javascript

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: Microservices, SOLID Principles, SOAP & Restful Web Services

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

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

Libraries: Pandas, Scikit-learn, PyTorch, TensorFlow, Keras, OpenAI Gym

Tools & Frameworks: .Net/Asp.Net, Wireshark, Boson (Computer Network Simulator), LATEX, Git

Others: GNU/Linux, Bash scripting, MySQL

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