Matin Moezzi

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Education

B.Sc. Computer Science—Minor in Mathematics, Amirkabir University of Technology (Tehran Polytechnic), 2016 – 2021

Selected Coursework: (*PASS/FAIL grading policy in Spring 2020 semester*)

Advanced Programming	18.5/20	Differential Equations	16.66/20
Artificial Intelligence	Pass/Fail	Numerical Linear Algebra	18.5/20
Neural Networks (Graduate level)	14/20	Data Mining	Pass/Fail
Stochastic Processes (I)	Pass/Fail	Probability (I)	18.4/20
Nonlinear Optimization	Pass/Fail	Linear Optimization	17.8/20
Computer Networks (with Lab.)	17.3/20	Operating Systems	19.5/20
Principles of Software Design	18/20	Compiler	19.5/20
Computer Simulation	20/20		

Mathematics & Physics Diploma, Allame Tabatabae High School, Advanced Department, 2012 – 2016

Astronomy and Astrophysics Olympiad Student – GPA: 19.71/20

Research Experience

Solving Control Problems Described by a System of Delay Differential Equations (DDEs) via Deep RL
Computational Intelligence & High Dimensional Systems Lab.
Faculty of Electrical Engineering, Amirkabir University of Technology
Under Supervision of Prof. Mohammad B. Menhaj (menhaj@aut.ac.ir)

Skills

Mathematics: Probability Theory, Stochastic Processes, Optimization, Linear Algebra, Numerical Analysis

Statistics: Inferential Statistics (Parametric & Nonparametric), Bayesian Statistics

Artificial Intelligence: Evolutionary Methods, Knowledge Representation & Reasoning

Machine Learning: Regression, Classification, Ensemble Learning, Clustering, Kernel Methods

Deep Learning: ConvNets, Sequence Models & RNN, Regularization & Optimization Methods

Reinforcement Learning: SARSA & Q-Learning, Policy Gradient, Actor-Critic Algorithms

Deep Reinforcement Learning: DQN, A2C, A3C, DDPG, TD3, PPO

Natural Language Processing: Word Embeddings & CBOW, N-Gram Language Model, Siamese Network, LSTM, Viterbi Algorithm, Attention and Transformer Models

Software Programming: OOP, Microservices, SOLID Principles, SOAP & Restful Web Services

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

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

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

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

Others: GNU/Linux, Bash scripting, MySQL

Online & Extracurricular Courses

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

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]

Artificial Intelligence Nanodegree Peter Norvig & Sebastian Thrun, Udacity [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, [See the Certificate]
Amirkabir Artificial Intelligence Summer Summit 2020

AI for Everyone, deeplearning.ai, Coursera [See the Certificate]

Deep Reinforcement Learning by Sergey Levine, CS 285 UC Berkeley, Youtube Lectures

Reinforcement Learning by David Silver, DeepMind & UCL, Youtube Lectures

Artificial Intelligence, Computer Engineering Dept., Sharif University of Technology

Data Networks, Electrical Engineering Dept. Sharif University of Technology

Data Science with Python Workshop, Computer Science Dept. Amirkabir University of Technology

Teaching Experience

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

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

Course Projects

Practical Reinforcement Learning Course by Coursera

- Taxi-v3 Env. using Q-Learning and Experience Replay
- Deep Kung-Fu with A2C Algorithm
- Atari Breakout Game using DQN
- Cartpole-v0 using REINFORCE Algorithm
- Cliff walking using SARSA Algorithm
- Cartpole-v0 using Deep Cross Entropy

Lunar Lander Problem with Deep RL Agent, Reinforcement Learning Specialization, Coursera

Machine Learning Algorithms in Scikit-learn library, Data Mining Course

Part of Speech Tagging with HMM, AI Nanodegree, Udacity

Air Cargo Planning Problem, AI Nanodegree, Udacity

Knights Isolation Game with Adversarial Search Algorithms, AI Nanodegree, Udacity

Othello, Tic-Tac-Toe & 8-Puzzle Adversarial Game Playing Agents, Artificial Intelligence Course

Readers-Writers & Dinning Philosophers Problem, Operating Systems Course

Distributed Calculator with Client-Server Architecture using TCP, Computer Networks Course

P2P File Transfer using UDP, Computer Networks Course

Linear Matrix Equation Solver in C, Numerical Linear Algebra Course

MySQL interface for Massive Datasets in C, Database Course

Work Experience

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

Designed and Implemented enterprise SOAP & Restful Web Services
Developed Asp.Net Core Web Apps & Web APIs

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

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

Activities

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

Language

Farsi: Native

English: Professional Working Proficiency

References

Prof. Mohammad B. Menhaj, 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

Prof. Adel Mohammadpour, Associate Professor, Department of Mathematics & Computer Science, Amirkabir University of Technology (Tehran Polytechnic), Iran, adel@aut.ac.ir

Prof. Hossein Nourikhah, Assistant Professor, Department of Mathematics & Computer Science, Amirkabir University of Technology (Tehran Polytechnic), Iran, nourikhah@aut.ac.ir