# Matin Moezzi

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#### **Education**

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

Selected Coursework:

Artificial Intelligence	Pass/Fail	Numerical Linear Algebra	18.5/20
Neural Networks (Graduate level)	14/20	Data Mining	Pass/Fail
Stochastic Processes	Pass/Fail	Probability	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 Engineering	18/20	Compiler	19.5/20

PASS/FAIL grading policy in Spring 2020 semester

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

Astronomy and Astrophysics Olympiad Student – GPA: 19.71/20

## **Research Experience**

**Stochastic PDE with 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, 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, 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] Artificial Intelligence Nanodegree, 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

Under Supervision of Prof. Nourikhah

Computer Networks, Teaching Assistant, Faculty of Computer Engineering, Amirkabir University of Technology, Spring 2020

Under Supervision of Prof. Sabaei

# Work Experience

Software Developer, iTours Co., Tehran, Iran, 2018 – 2019

Designed and Implemented enterprise SOAP & Restful Web Services

Developed Asp.Net Core Wep App & Web API

Web Developer, Pasargad Insurance, Tehran, Iran, 2017 – 2018

Effectively refactored previous projects based on Design Patterns & SOLID principles

Developed a Asp.Net web application for the insurance management system

Developed front-end side of web application with HTML, CSS & Javascript

# **Course Projects**

Taxi Gym Env. using Q-Learning and Experience Replay, Practical Reinforcement Learning, Coursera

Atari Kung-Fu Master Game using A2C, Practical Reinforcement Learning, Coursera

Atari Breakout Game using DQN, Practical Reinforcement Learning, Coursera

Cartpole Problem using Actor-Critic in Keras, Neural Network Course

Part of Speech Tagging with HMM, 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

## Language

Farsi: Native

English: Professional Working Proficiency

#### References

**Prof. Mohammad B. Menhaj**, Associate 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