AMIRHOSSEIN AMINIMEHR

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EDUCATION

Master of Artificial Intelligence, School of Computer Engineering, Iran University of Science and Technology (Iran top 4)

2020 - Present

GPA: 4.0 (19.53/20)

Selected Courses: Machine Learning, Deep Learning, Neural Networks, Pattern Recognition, Image Processing,

Natural Language Processing, Multi Agents

Supervisor: (Dr. Sauleh Eetemadi)

Bachelor of Computer Engineering, School of Computer Engineering, Iran University of Science and Technology (Iran top 4)

2016 - 2020

GPA: 3.769 (18.00/20)

Selected Courses: Artificial Intelligence, Signals and Systems, Computer Game Design, Software Engineering, Com-

puter Networks, Computer Security, Database Design

Supervisor: (Dr. Nasser Mozayani)

PUBLICATIONS

Ehsan Khodapanah Aghdam, Reza Azad, Atlas Hadaddi Avval, **Amirhossein Aminimehr**, Sania Eskandari, Alaa Sulaiman, Dorit Merhof - 2023. Medical Image Segmentation: A Survey on Imaging Modalities and Benchmarks. **IEEE Journal of Biomedical and Health Informatics.** (To be submitted)

Amirali Molaei, **Amirhossein Aminimehr**, Armin Tavakoli, Amirhossein Kazerouni, Babak Azad, Reza Azad, Dorit Merhof - 2023. Implicit Neural Representation in Medical Imaging: A Comparative Survey. **ICCV CVAMD 2023.** (Accepted) (Link)

Amirhossein Aminimehr, Amirali Molaei, Erik Cambria - 2023. Entri: Ensemble Learning with Tri-Level Representations for Explainable Scene Recognition. (In review process) (Link)

Amirhossein Aminimehr, Pouya Khani, Amirali Molaei, Amirmohammad Kazemeini, Erik Cambria - 2023. TbExplain: A Text-Based Explanation Method for Scene Classification Models with the Statistical Prediction Correction. Expert Systems with Applications. (In review process) (Link)

Amirhossein Aminimehr, Amin Aminimehr, Hamid Moradi Kamali, Sauleh Eetemadi - 2023. Stock Market Dynamics Through Deep Learning Context. Mathematics. (To be submitted)

Amin Aminimehr, Ali Raoofi, Akbar Aminimehr, **Amirhossein Aminimehr** - 2022. Thexplain: A comprehensive study of market prediction from Efficient Market Hypothesis up to late intelligent market prediction approaches. Computational Economics - Springer. (Published) (Link)

Amin Aminimehr, Amirhossein Aminimehr, MohammadJalal Pouromid, Arman Yekkehkhani - 2021. A Time Step Cascade CNN-LSTM Neural Network for predicting adjusted close price of 5 largest firms in Tehran Stock Exchange. 3rd International Conference on Interdisciplinary Studies in Management Engineering (ICISME-2021). (Published) (Link)

Amin Aminimehr, Ali Raoofi, Akbar Aminimehr, **Amirhossein Aminimehr** - 2020. The role of Feature Engineering in prediction of Tehran Stock Exchange Index based on LSTM. **Iranian Journal of Economic Studies - Shiraz**

RESEARCH INTERESTS

Computer Vision
 Scene Recognition
 Explainable Artificial Intelligence
 Semantic Segmentation
 GANs
 AI in Medical Imaging

• Object Detection • AI in Stock Prediction

| TEACHING EXPERIENCE | |
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| Natural Language Processing (Teacher Assistant of Dr. Behrouz Minaei-Bid Iran University of Science and Technology | goli) Spring 2023 |
| Natural Language Processing (Teacher Assistant of Dr. Behrouz Minaei-Bid Iran University of Science and Technology | goli) Fall 2022 |
| Mobile Networks (Teacher Assistant of Dr. Abolfazl Diyanat) Iran University of Science and Technology | Fall 2022 |
| Neural Networks (Teacher Assistant of Dr. Naser Mozayani) Iran University of Science and Technology | Fall 2021 |
| Database Design (Teacher Assistant of Dr. Eisa Zarepour) Iran University of Science and Technology | Fall 2019 |
| Computer-Aided Design (Teacher Assistant of Dr. Hajar Falahati) Iran University of Science and Technology | Spring 2018 |
| Discrete Mathematics (Teacher Assistant of Dr. Mehrdad Ashtiani) Iran University of Science and Technology | Fall 2018 |
| Computer Architecture (Teacher Assistant of Dr. Hakem Beitollahi) Iran University of Science and Technology | Fall 2018 |
| Logic Circuits (Teacher Assistant of Dr. Hakem Beitollahi) Iran University of Science and Technology | Spring 2017 |
| WORK EXPERIENCE | |
| Backend Developer (NodeJS) Rectified.ai | May 2020 - December 2020 |
| INTERNSHIP | |
| Cloud Engineer Cloud Computing Center of Iran University of Science and Technology | January 2020 – May 2020 |

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| Frontend Developer Intern (React) Knowledge Based Firm | July 2017 – October 2017 |

PROFESSIONAL ACTIVITIES

| Journal Reviewer | September 2022 – Present |
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| Knowledge-Based Systems | |

SKILLS SUMMARY

Languages and Softwares: Python(TensorFlow/PyTorch), C++, C, Java, JavaScript, MATLAB, SQL, Verilog, VHDL, AVR, Arduino

Frameworks: React, Django, Unity

HONOR AND AWARDS

- Membership of Iran's National Elites Foundation
- Rank 2 among 30 students at School of Computer Engineering, Iran University of Science and Technology 2020 Master Entries for Artificial Intelligence Branch
- Rank 2 among 68 students at School of Computer Engineering, Iran University of Science and Technology 2016 Bachelor Entries for Computer Engineering
- Direct Admission for Master's and PhD studies, Iran University of Science and Technology, 2019 and 2022
- Rank 2000 among more than 182,000 participants at Iranian National Universities Entrance Exam
- Acceptance to High School of The Shining Talents of Iran
- Acceptance to Math Olympiad Of Iran 2013
- 2th place within 25 teams at Iran University of Science and Technology ACM competition
- Skipped One grade of Elementary School as an Exceptional Talent in 2009
- Second place in the Tehran city chess competition 2011

ONLINE COURSES

- Machine Learning, Coursera-Stanford University
- Neural Networks and Deep Learning, Coursera-DeepLearning.AI
- Cyber Threats and Attack Vectors, Coursera-University of Colorado System
- Django Framework, Iran University of Science and Technology

ACADEMIC PROJECTS

- Deep Reinforcement Learning for Flappy Bird Game
- Enhanced CycleGAN
- Detecting Saffron in the Corcus Flower with EfficientDet Model
- Robust CNN model against fooling
- Tank War Game