ALIREZA JAHANDOOST

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RESEARCH INTERESTS

- **Financial Signal Processing**
- **Medical Signal Processing**
- **Natural Language Processing**

EDUCATION

Bachelor's in Computer Engineering   *Sep. 2019 - Mar. 2024*
- Islamic Azad University - Mashhad Branch
- *Cumulative GPA:* 19.60/20 - 3.98/4 (Until Now)
- *Passed Credits:* 146/152
- *Selected Courses:* Fundamentals of Speech and Language Possessing (20/20), Computational Intelligence (20/20), Fundamentals of Computer Vision (20/20), Artificial Intelligence and Expert System (19.5/20), Principles of Robotics (19.25/20), Algorithm Design (19.75/20), Advanced Programming (20/20), Data Structures (20/20)

MAIN PUBLICATIONS

Published and orally presented(link here):   Jahandoost, A.; Houshmand, M.; Hosseini, S.A. Prediction of West Texas Intermediate Crude-oil Price Using Hybrid Attention-based Deep Neural Networks: A Comparative Study. In Proceedings of the 2023 13th International Conference on Computer and Knowledge Engineering (ICCKE), Mashhad, Iran, 1-2 November 2023

Accepted (oral presentation on Feb. 29, 2024):   Jahandoost, A.; Houshmand, M.; Hosseini, S.A. Prediction of West Texas Intermediate Crude-oil Price Using Ensemble Learning Techniques and Neural Networks. The 10th International Conference on Artificial Intelligence and Robotics - QICAR 2024. Qazvin Islamic Azad University, Feb. 29, 2024

Accepted (poster presentation on Feb. 21-22, 2024):   Jahandoost, A.; Baradaran, M.; Moattar, M.H. Multi-Period High Dimensional Data Modeling Using Hybrid Zero-Convolution CNN-LSTM for Improved Crude-Oil Price Prediction . The 20th CSI International Symposium on Artificial Intelligence and Signal Processing

TEACHING EXPERIENCE

Workshop Lecturer (20 sessions)   *Jun. 2022 - Sep. 2022*
- *Workshop Name:*   Algorithm Design and Competitive Programming
- *Covered Contents:*   Time Complexity, Sorting, Basic Data Structures, Complete Search (Brute Force), Greedy Algorithms, Dynamic Programming, etc.

Teaching Assistant   *2023, Winter Semester*
- *Course Name:*   Algorithm Design
- *Duty:*   Conducting exercise solving sessions

WORK EXPERIENCE

ACM Lab, Azad University of Mashhad (Member)   *Jan. 2020 - Aug. 2022*
- Solved more than 1000 problems in Codeforces
- Educated ICPC members and helped them in solving their challenging programming problems
- *Codeforces Account:*   https://codeforces.com/profile/Ar_JhD

Fullstack Web Development (Freelancer)   *Apr. 2022 - Mar. 2023*
- *Employed Skills:* PHP, Javascript, Mysql, Laravel, HTML, CSS, React, Tailwindcss, Bootstrap.

CHOSEN CERTIFICATES

1. [DeepLearning.AI: Supervised Machine Learning: Regression and Classification](#)
2. [DeepLearning.AI: Advanced Learning Algorithms](#)
3. [DeepLearning.AI: Unsupervised Learning, Recommenders, Reinforcement Learning](#)
4. [DeepLearning.AI: Neural Networks and Deep Learning](#)
5. [DeepLearning.AI: Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization](#)
6. [DeepLearning.AI: Structuring Machine Learning Projects](#)
7. [DeepLearning.AI: Convolutional Neural Networks](#)
8. [DeepLearning.AI: Sequence Models](#)

SOME PROJECTS

1. [NLP: Feature Extraction](#)
   - Implemented many feature extraction techniques in time and frequency domains, such as cepstral analysis and auto correlation, as part of the NLP course of the university under the supervision of professor Moattar, with the Python programming language and many libraries, such as librosa, scipy, matplotlib, and numpy.
2. [Digit Recognition DNN from scratch](#)
   - Implemented a basic deep neural network from scratch with the Python programming language, numpy, and matplotlib libraries to present at the university and talk about forward and backward propagation in deep neural networks.
3. **Exams Galaxy**
   - Implemented an examining platform with many features, such as support for six types of questions and auto-correction of five types of questions, with more than 100,000 written lines of code.
   - Consisting of [back-end part](#), [front-end part](#), and [landing pages part](#)
   - Employed Skills: Javascript, PHP, Reactjs, Laravel, Bootstrap, Jestjs, Mysql, and Nextjs

VOLUNTEER WORKS

Main member of computer engineering scientific association   *Jan 2021 - Jan 2023*
Supervisor and designer of internal programming contests of the university
   Contests' Dates: 10/09/2021, 17/12/2021, 11/02/2022
Supervisor of the training of ICPC teams
   Conducted many training contests and solving classes for 2021 ICPC contest.

TECHNICAL SKILLS

Programming Languages	**Chosen Libraries**
C/C++ - Python - PHP - Javascript - Matlab	Scikit Learn - Numpy - Pandas - Matplotlib - Mealpy - Scipy
Frameworks	**Operating Systems**
Tensorflow - Laravel - React js - Next js	Ubuntu - Windows
Database	
MySQL - SQL Server	

ENGLISH LANGUAGE PROFICIENCY

TOEFL iBT   *April 29, 2023*
   Total: 107/120 — Reading: 28/30 — Listening 29/30 — Speaking 23/30 — Writing:27/30

HONORS AND AWARDS

- **Achieved twenty-second place in the [2020 ICPC Asia Tehran Regional Contest](#)**
- **Rank 1 of the entrance based on GPA**
- **Became the rank 1 of the university in competitive programming since the third semester**