

# Mojtaba Alehosseini

✉ Alehosseini.Mojtaba@gmail.com | 🐙 Mojtaba-Alehosseini | 📄 GitHub.io | 🌐 Mojtaba-Alehosseini

## EDUCATION

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2017 - 2022 B.Sc. Computer Science at *Yazd University/Iran*

Selected Courses:

(GPA: 17/20)

Advanced Programming (Grade: 19), Theory of Computation (Grade: 18.25), Operating Systems (Grade: 18.5), Artificial intelligence (Grade: 17), Computer Networks (Grade: 18.1), Computer Simulation (Grade: 17.75), General Mathematics III (Grade: 19), Linear Optimization (Grade: 17.5), Linear Algebra (Grade: 14.25), Data Mining (Grade: 15.75), Databases (Grade: 16.25), Algorithms (Grade: 14.5), Data Structures (Grade: 15), Complex Analysis (Grade: 16), Differential Equations (Grade: 16), General Physics I (Grade: 19.25)

## INTERESTS

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Machine learning, Deep learning, Big data, Data Analysis, Blockchain, Web3, and Distributed Systems.

## SELECTED PROJECTS

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Identification of pneumonia based on a deep learning approach. 🐙

Implemented convolutional neural network, using different architectures like VGG, ResNet, NASnet.

Implementing and investigating the performance of classification algorithms such as decision tree, K-nearest neighbor, logistic regression and random forest to:

Predict whether a person requires Covid test using these symptoms. 🐙

Classifying patients with liver problems in a clinical data set. 🐙

Experimenting and identified best features for different algorithms.

Performing data normalization using different methods (Min-Max, z-score).

Performing N-fold cross-validation on the data set.

Comparing precision, recall and F-score of the algorithms.

Developing a System Modeling and Simulation for:

Newspaper Seller's Problem using VBA in Office Excel. 🐙

Replacing Bearings in a Milling Machine using Python in Jupyter notebook. 🐙

The Dump Truck Problem using VBA in Office Excel. 🐙

Implementing the Genetic Algorithm and particle swarm optimization 🐙

in Matlab and Python with the aim of applying them to the search of the optimum solution of multiple complex functions.

Advanced implementation of regression modelling techniques like lasso regression in Python. 🐙

Implementing the Topic analysis technique in natural language processing. 🐙

Implementation of CNN using Keras for classification of MNIST dataset. 🐙

Implementation of rgb2gray to convert RGB image to grayscale without using OpenCV. 🐙

Implementation of a smart contract on the Goerli Testnet Network with Solidity. 🐙

Using a Cryptography library to generate private and public keys, sign and validate the signature, and mine a block. 🐙

Strassen's Matrix Multiplication Algorithm with C++. 🐙

Deriving data structure to eliminate vertices in a tree structure. 🐙

Deriving and implementing a gym registration software using SQL as the database and C# in Visual Studio.

Developing a restaurant software with C++ to scan and analyze daily transaction data files. 🐙

## LANGUAGE SCORES

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**TOEFL IBT: 99 out of 120** (Reading: 28, Listening: 26, Speaking: 20, Writing: 25)

## SKILLS

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<b>Industry Knowledge</b>	Machine Learning, Operating Systems, Computer hardware expertise
<b>Programming Languages</b>	C++, C, Python, MATLAB
<b>General</b>	L <sup>A</sup> T <sub>E</sub> X, Microsoft Excel, Microsoft office
<b>Soft Skills</b>	Teamworking, Teaching, Self-Learning, Problem-Solving, Deep work.

## WORK EXPERIENCES

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**System Administrator, Setare Talae Co., Delijan, Iran** 2021 - 2022  
As an IT member of Setare Talae Co. I was responsible for supporting, troubleshooting, and maintaining computer servers and networks.

**I was the co-founder of Pinfopedia**, which is a startup company in the field of IT and commercial data sorting and holograming.

**Network administrator assistant at Yazd University, Yazd, Iran** 2018 - 2019

## TEACHING ASSISTANT EXPERIENCES

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Advanced Programming	Yazd University, Fall 2020
Introduction to Programming	Yazd University, Fall 2019

## OTHER ACTIVITIES

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**Secretary of Scientific Computer Science Association of Yazd University for 2 years.**  
Our association was named the 2nd best scientific association in Yazd University. I held and managed lots of contests.

**The scientific editor of DigiATech** (which was a journal published by the scientific association of computer sciences of Yazd University). I published a review article on machine learning methods and another one on data mining.

**The Translator of SimPy library manual (from English to Persian).** 

## HONORS AND AWARDS

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**Ranked in the top 2%** of nearly 500,000 participants in the nationwide university entrance exam, 2017.  
**Ranked the 3rd** highest scoring student of computer sciences of Yazd University, 2021

## REFERENCES

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**Dr. Jamal Zarepour**  

Assistant Professor, Head of Yazd University Computer Science Department, Yazd, Iran  
Email Address: [zarepourjamal@yazd.ac.ir](mailto:zarepourjamal@yazd.ac.ir)

**Dr. Saeid Alikhani**  

Professor of Mathematics, Chair of School of Mathematical Sciences, Yazd University, Yazd, Iran  
Email Address: [alikhani@yazd.ac.ir](mailto:alikhani@yazd.ac.ir)