Amirhossein **Alizad**

COMPUTER ENGINEERING · STUDENT

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Education

College of Electrical and Computer Engineering, University of Tehran   *Tehran, Iran*

B.Sc. in Computer Engineering (Software Engineering Major)   *SEP 2018 - PRESENT*

- **GPA: 17.03/20 - 3.34/4 (Last Two Years: 18.63/20 - 3.95/4)** Faculty Average: 15.1/20, Major Average: 15.97/20
- **Related Courses:** Data Structures and Algorithms(18.5/20) - Design and Analysis of Algorithms(19.5/20)
  - Computer Architecture(20/20) - Operating Systems(19.5/20) - Artificial Intelligence(19.5/20) - Database Design(19.45/20)
  - Formal Languages and Automata Theory(20/20) - Compilers and Programming Languages(18.75/20) - Computer Networks(17.9/20)
  - Software Engineering(19/20) - Formal Methods in Software Engineering(17.7/20) - Software Testing(19.84/20)
  - Internet Engineering(17.1/20) - Parallel Programming(17.7/20)

Shahid Beheshty Highschool   *Rey, Tehran, Iran*

DIPLOMA IN MATHEMATICS AND PHYSICS   *SEP 2014 - JULY 2018*

- As a part of National Organization for Development of Exceptional Talents (NODET)

Honors and Awards

2018   **Ranked Top 0.15%**, in Iranian University Entrance Exam with more than 140,000 participants   *Tehran, Iran*

Skills

Programming
- Advanced: java, C++
- Intermediate: C, SQL, python, VerilogHDL
- Beginner: Antlr, HTML, R, Ansible
- Familiar: Assembly, Go, PHP

Technology
- Git
- Maven
- Jupyter Notebook & Google Colab
- FrameWorks: Spring, JUnit unit testing framework
- Databases: MySQL, PostgreSQL, Hazelcast
- Operating Systems: Windows, Linux(Ubuntu)
- Python Libraries: Keras, seaborn, matlotlib, pandas, numpy, sklearn

Software Engineering
- Familiar with different object-oriented design patterns, software development methodologies such as Agile and DevOps, and software testing methodologies.

Research Interests

- Graph Algorithms
- Database Systems
- Computer Vision
- Software Testing
- programming languages and methodology
- Network and System Security
- Speech Recognition and Processing & natural language processing
- Data Mining and Data Retrieval

Research Experience

Social Network Graph   *University of Tehran*

- Under supervision of Dr. Behnam Bahrak   *SEP 2021 - NOV 2021*
- Finding the social network of a persion in social media, using network theory and graph theory.

Hate Speech Detection   *University of Tehran*

- Under supervision of Dr. Azadeh Shakery   *JULY 2022 - PRESENT*
- Detecting whether a given text contains a hate speech towards its contact using a predefined data set.
- Implemented using RNN and LSTM.

Teaching Experience

Teaching Assistant *Tehran, Iran*
UNIVERSITY OF TEHRAN

	FEB 2021 - JULY 2021
Formal Languages and Automata Theory	*FEB 2022 - JULY 2022*
	SEP 2022 - FEB 2023

Formal Languages and Automata Theory   *FEB 2021 - JULY 2021*
                                        FEB 2022 - JULY 2022
                                        SEP 2022 - FEB 2023

Design and Analysis of Algorithms   *FEB 2021 - JULY 2021*
Data Structures and Algorithms   *SEP 2020 - FEB 2021*
Introduction to Computing Systems and Programming   *SEP 2020 - FEB 2021*

Supervising Teaching Assistant *Tehran, Iran*
UNIVERSITY OF TEHRAN

Data Structures and Algorithms   *FEB 2021 - JULY 2021*
                                  SEP 2021 - FEB 2022

Introduction to Computing Systems and Programming   *SEP 2021 - FEB 2022*

Coordinator Teaching Assistant *Tehran, Iran*
UNIVERSITY OF TEHRAN

Software Testing   *SEP 2022 - FEB 2023*

Head Teaching Assistant *Tehran, Iran*
UNIVERSITY OF TEHRAN

Data Structures and Algorithms   *FEB 2022 - JULY 2022*
                                  SEP 2022 - FEB 2023

Notable Academic Projects

Price Class Prediction *University of Tehran*
- Operating Systems Course Project   *Dec. 2020*
- Implemented using Pthread library to run a serial and parallel(using more than one thread) Prediction program and avoiding shared memory problems using mutex locks.
- Implemented in C++.

Snakes and Seeds *University of Tehran*
- Artificial Intelligence Course Project   *Oct. 2020*
- Finding all the seeds in the map, in the shortest time possible, using search algorithms like IDS, A*, ...
- Implemented in python

Comments *University of Tehran*
- Artificial Intelligence Course Project   *Nov. 2020*
- Predicting whether a given comment as input is recommending the product or not, using Naive Bayes Classifier and Hazm library in python
- Implemented in python

House Price Prediction *University of Tehran*
- Artificial Intelligence Course Project   *Dec. 2020*
- Predicting and finding the price of a house with given qualities, using SKLearn and seaborn libraries
- Implemented in python

Lung Decease Detection *University of Tehran*
- Artificial Intelligence Course Project   *Jan. 2021*
- Training neural networks using different activation functions and other different features using keras library to detect whether a picture of a lung given to the network, has pneumonia, covid-19 or is normal.
- Implemented in python

FTP Client Server
University of Tehran

Apr. 2021

- Computer Networks Course Project
- Implementing simple FTP Client and server using sockets and multithreading.
- In contribution with Parsa Kutzari.
- Implemented in C++

Enroll Assist

Radin Bourse

July 2021

- Summer Internship Project
- Implementing Enroll Assist Application to simplify enrollment process for students.
- In contribution with Sarina Hamedani and Mehrnaz Shams Abadi.
- Implemented in java using Spring frameWork

Work Experience

Radin Bourse

Tehran, Iran

SUMMER INTERNSHIP, SOFTWARE ENGINEER

JULY 2021 - SEP 2021

- 8-Weeks Internship.
- Designed and implemented a web application.
- Application to assist enrollment before each semester for students.
- Implemented in java using Spring frameWork.

Radin Bourse

Tehran, Iran

PART TIME, SOFTWARE ENGINNER

SEP 2021 - PRESENT

- Designing and developing an ultra-low latency trading platform.
- Software Engineer and Back-end Developer.
- Infrastructure specialist in deployment.

Languages

Persian   Native
English   Professional working proficiency