# TAHA MOUSAVI

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#### **EDUCATION**

## Shahid Beheshti University, Tehran, Iran

Bachelor of Science (BSc.), Computer Engineering

Sep. 2019 - Present

GPA: 3.83/4

#### **National Organization for Development of Exceptional Talents**

High School Diploma in Mathematics and Physics

Sep 2016 - Sep 2019

GPA: 19.9/20 (3.98/4)

#### **RESEARCH INTERESTS**

Artificial Intelligence

Natural language processing

· Algorithms analysis

Machine Learning

· Computer vision

• Database Management

#### **HONORS & AWARDS**

## 4th place at Amirkabir Artificial Intelligence Competitions (AAIC)

Mar. 2023 - Apr. 2023

Achieved 4th place for intent detection in complex queries in Hamrah-e-Aval chatbots

## 6th place, out of 110 undergraduate students in Computer Engineering

Oct. 2019 - Oct. 2023

At Shahid Beheshti University

## RESEARCH EXPERIENCES

## Research Assistant, Natural Language Processing Lab

Mar. 2023 - Present

Contributed to a project focused on complex query intent detection in chatbots

- Performed data pre-processing tasks, including tokenization, stemming, and data normalization
- · Implemented noise removal, TF-IDF, data augmentation, and learning rate scheduling techniques
- Utilized various machine learning and deep learning models, including ParsBERT, RoBERTa, XGBoost, SVM, and Random Forest, achieving an accuracy of 93%

B.Sc. Thesis Jun. 2023 - Present

A Deep Learning-Based Method for Parkinson's Disease Diagnosis from EEG Signals

Enhanced an existing CNN model with the SincNet architecture, resulting in an accuracy of 99%

#### **PROJECTS**

#### User Audience Prediction using NLP Approaches - Al course | Python, Pandas, Numpy, scikit-learn, Parsivar

Jan. 2022

- Developed an end-to-end model for predicting user audience questions using Naive Bayes algorithm and achieved an accuracy of 0.83
- Contributed to the development of the faculty chatbot and intelligent student assistant system, Soha (Intelligent Communication System)

#### Face Verification System | Python, Keras, TensorFlow, OpenCV, NumPy, Pandas

Jan. 2023

- · Implemented a face verification system using FaceNet and achieved face feature extraction from images
- · Computer Vision Course

## Anomaly Detection in a Security Camera System | Python, scikit-learn, NumPy, Pandas, Matplotlib

Jul. 2023

- Performed data preprocessing, feature extraction, and implemented unsupervised machine learning techniques for anomaly detection
- Utilized techniques like PCA, feature selection based on normal distribution, Gaussian method, DBSCAN, and Isolation Forest
- · Machine Learning Course Final Project

#### **Software Testing using Selenium** | Python, Selenium

Jul. 2023

- Developed automated testing scenarios using Selenium to validate functionality and report bugs for improved product quality
- · Software Testing Course Final Project

## **Shopping Search Engine, Torob** | ReactJS, NodeJS

Jul. 2022

- Built a shopping website for browsing and purchasing products using ReactJS for frontend and NodeJS for backend
- Internet Engineering Course Final Project

#### Game & Entertainment Network, Plato) | Java, Android

Jul. 2020

- Implemented a game and entertainment network using sockets to send and receive data between the server and clients in an Android application
- · Advanced Programming Course Final Project

#### **TEACHING EXPERIENCES**

#### Advanced programming | Head TA

Sep. 2021 - Jun. 2022

By Dr. Vahidi Asl

- Leading and managing a group of 5 TAs
- Mentoring students to build a mobile application
- Designer and grader of final project and assignments
- Conducted TA classes to assist students
- +50 students

• +80 students

+50 students

## Advanced programming | TA

Feb. 2021 - Jan. 2022

By Dr. Vahidi Asl

- Designer and grader of final project and assignments
  +50 students
- Conducted TA classes to assist students

#### **Basic Programming | TA**

Sep. 2020 - Jun. 2021

By Dr.AliAkbari

- · Designer and grader of the assignments
- Conducted TA classes to assist students

#### Advanced programming | TA

Sep. 2021 - Jan. 2022

By Dr.AliAkbari

- Designer and grader of final project and assignments
  +50 students
- Conducted TA classes to assist students

## Software Engineering | TA

Sep. 2023 - Present

By Dr. Alidoost Nia

- Designer and grader of final project and assignments
  +50 students
- · Conducted TA classes to assist students

#### Operating Systems | TA

Sep. 2022 - Jun. 2023

By Dr. Ebrahimi Moghadam

- Designer and grader of assignments
- Conducted TA classes to assist students

## **WORK EXPERIENCES**

## Faranegar Company. IT, Software and Internet Services

Feb. 2021 - Present

Developer and Tester

Tehran, Iran

- · Designed efficient algorithms for coding, decoding, and compressing barcode, text, and JSON files
- Developed mobile applications and web apps, including online check-in systems for travelers
- · Contributed to software test design and execution, ensuring software quality

Mohaymen ICT Jul. 2021 – Sep. 2021

Intern

Tehran, Iran

Acquired knowledge in inverted index algorithms, code review, and unit testing

Gained expertise in data binding, multi-threading, networks, services, and SQL in Android programming

## TECHNICAL SKILLS

Languages: Python, Java, Dart, C++, SQL

Frameworks: Numpy, Pandas, OpenCV, PyTorch, Tensorflow, Scikit-learn

Developer Tools: Jupyter, VS Code, MongoDBCompass, Selenium, and Android studio

Other Technologies/Frameworks: Linux, Git, GitHub, Gira

#### **RELEVANT COURSES**

**Machine learning Specialization - Coursera**