Mohammad Mahdi Ain Moghassemi

Tehran, Iran

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EDUCATION

K.N. Toosi University of Technology

Sep. 2018 - Jun 2023

Bachelor of Computer Engineering

Tehran, Iran

- GPA: 15.58/20 (3.09/4), LastTwoYears: (3.34/4)
- Selected Courses:

System Analysis & Design (20/20), Software Engineering (18/20), Computer Structure & Language (18.55/20), Algorithmic Graph Theory (16.5/20), Algorithm Design (18/20), Logic Circuits (17.75/20), Principles of Compiler Design (20/20), Microprocessors & Assembly Language (19/20), Computer Networks II (19/20), Project (20/20)

RESEARCH INTERESTS

• Artificial Intelligence

• Machine Learning

• Computer Vision

• Deep learning

TEACHING EXPERIENCE

Lead Teaching Assistant at K.N.Toosi University of Technology

In charge of holding workshops, creating and grading assignments and the final project.

Lead TA responsible for coordinating and managing the grading process among other TAs.

Course: Assembly and Machine Language

Sep 2022 - Feb 2023

• Instructor: Prof. Behrooz Nasihatkon

Course: Microprocessors & Assembly Language • Instructor: Prof. Zahra Shirmohammadi

Sep 2021 - Feb 2022

Helped students with both their mathematical and programming problems

Teaching Assistant at K.N.Toosi University of Technology

In charge of holding workshops, creating and grading assignments and the final project. Produced tutorials for students.

Course: Fundamental of Computer & programming

Sep 2022 - Feb 2023

• Instructor: Prof. Hamed Khanmirza

Course: Assembly and Machine Language • Instructor: Prof. Behrooz Nasihatkon Sep 2020 - Feb 2021

WORK EXPERIENCE

3Tex Nov 2023 - Present

Front End Developer

Tehran, Iran

- Development of the front end of a responsive web application using JavaScript, React, and Next.js.
- Responsible for identifying and fixing design and functional bugs
- Technical Skills: HTML, CSS, JS, React, Next.js, Databases, Git
- Soft Skills: Soft Skills: Teamwork, Time Management, Collaboration, Communication, Monitoring and troubleshooting.

Soroush Educational Complex

Jun 2023 - Nov 2023

Front End Developer and Software Developer

Tehran, Iran

- Designed and implemented software solutions aimed at streamlining workflows and minimizing paper usage.
- Developed a Telegram bot integrated with Telethon to automate the delivery of academic reports.
- Provided comprehensive hardware and software support for the organization
- Technical Skills: HTML, CSS, JS, React, Python, Telethon, Git
- Soft Skills: Teamwork, Time Management, Collaboration, Communication

Karin Payesh(Internship)

Jun 2022 - Oct 2022

Front End Developer Intern

Tehran, Iran

- Assisted in development of the front end of a responsive web application using JavaScript, React, and Next.js.
- Technical Skills: HTML, CSS, JS, React, Redux, Git
- Soft Skills: Teamwork, Time Management, Collaboration

Projects

Handwritten-Digit-Recognition | Python, Jupyter, Neural Networks, TensorFlow, Keras, NumPy, Classification

- A neural network designed to recognize handwritten digits zero and one using TensorFlow and Keras
- Developed a neural network model to recognize handwritten digits (0-9) using the TensorFlow framework.
- Demonstrated the complete process, from loading the dataset to training the model and making predictions.

$\mathbf{HomeLand}(\mathbf{Thesis}) \mid Python, \ Django, \ JavaScript, \ React, \ Redux, \ Rest-Framework, \ Postgresql$

- Developed a modern and responsive hotel booking website using a tech stack comprising Django, Django Rest API, React, Axios, and React Router DOM.
- Implemented end-to-end functionalities, seamlessly integrating the front-end and back-end components for a smooth user experience.
- Utilized Axios for asynchronous HTTP requests, enabling real-time data exchange between the React front end and Django back end.
- Implemented dynamic updates and data retrieval, ensuring users experience instant feedback and responsiveness while interacting with the hotel booking platform.

Virus Recognition Using Decision Trees | Python, Decision Trees, classification

- Successfully designed and implemented a Decision Tree-based classification model for virus recognition.
- Implemented a Decision Tree-based classification model using Python's scikit-learn library

Huffman Encoding and Decoding | Java, Huffman Tree, Encoder, Decoder

- Designed a system using Java to simulate a robust implementation of Huffman encoding and decoding algorithms
- This algorithm uses the Huffman tree for its algorithms
- Implemented object-oriented programming practices

Othello AI $\mid C$

- The Othello AI project aims to develop an intelligent computer program capable of playing the classic board game Othello at a high level.
- Evaluate different possible moves and choose the one that maximizes its chances of winning while minimizing the opponent's opportunities.
- Played multiple games against a tester who made random moves. The goal was to demonstrate that my code could consistently make strategic decisions that would lead to victory.

Technical Skills

Languages: C/C++, Python, Java, HTML, CSS, JavaScript, VHDL, Verilog, SystemC, MATLAB, Octave, IATEX, x86 Assembly, AVR Assembly, SQL(PostgreSQL, MySql)

Python Libraries: Tensorflow, Pytorch, Scikit-learn, OpenCV, Pandas, Numpy, Matplotlib, Requests, Telethon, Keras, Networkx, Jupyter

Technologies/Frameworks/Libraries: Linux, Git(GitHub, GitLab), Jira, Google Colab, React, Redux, Next.js, Flask

Workshops & Self-Studies

Supervised Machine Learning: Regression and Classification & Advanced Learning Algorithms stanford - DeepLearning.AI

Coursera

2023

Languages

Persian: Native

English: IELTS, Overall Band Score: 6.5 (Listening: 6.5, Reading: 7.0, Writing: 6, Speaking: 6.5)

References

Behrooz Nasihatkon

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• Assistant Professor, Computer Engineering Department, K. N. Toosi University of Technology, Tehran, Iran

Fatemeh Rezaei

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• Assistant Professor, Computer Engineering Department, K. N. Toosi University of Technology, Tehran, Iran

Hamed Khanmirza

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- Assistant Professor, Computer Engineering Department, K. N. Toosi University of Technology, Tehran, Iran
- Manager of KNTU HPC Center