Sobhan Moghimi

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EDUCATION

Amirkabir University of Technology   **2020-present**
Bachelor of Science Candidate; Major in Computer Science   Tehran, Iran
- Awards: Rank 4th among more than 75 students until now.
- GPA: **4/4** (**19.05 / 20**) via 113 units

National Organization for Development of Exceptional Talents(NODET)   **2017-2020**
High School Diploma   Amol, Mazandaran
- GPA: **19.36 / 20**

RESEARCH EXPERIENCE

Research Intern   **Jul 2022 – Dec 2022**
Institute for Research in Fundamental Sciences (IPM)   Tehran, Iran
- Worked under the supervision of Dr.Nezam Rohbani.
- Achieved more than 95% accuracy in smoke detection by leveraging CNNs and Transformers for computer vision, and implemented 3D-CNN models to process large video sequences for real-time application.

   Technologies and Skills: Python, PyTorch, Tensorflow, Deep Learning, CNN

WORK EXPERIENCE

Blockchain Developer   **June 2023 – Present**
Panta Chain   Tehran, Iran
- Developed services for investigating Centralized Exchanges Bitcoin addresses, which resulted in finding more than 10,000 addresses of the top five Iranian exchanges.
- Researched graph algorithms to achieve a risk score management system for blockchain addresses.

   Technologies and Skills: Blockchain, Web3, Python, Postgresql, Apache Kafka

Software Engineer   **Feb 2023 – April 2024**
Invex Exchange   Tehran, Iran
- Architected blockchain-integrated APIs on Invex Exchange main server; optimized blockchain data synchronization, achieving more than 50% reduction in transaction validation duration and ensuring seamless user experience.
- Developed back-end for transaction management and automation of cryptocurrencies and Fiat deposits and withdrawals.
- Developed a microservice to get prices of cryptocurrencies with a transaction speed of less than 10 milliseconds on average.

   Technologies and Skills: Python, gRPC, Web3, Blockchain, Postgresql, Apache Kafka, FastAPI

TEACHING EXPERIENCE

Undergraduate Teaching Assistant at the Sharif University of Technology   **Tehran, Iran**
Machine Learning for Bioinformatics (Graduate Course) | Spring 2023
- Course instructor: Dr.Ali Sharifi-Zarchi
- Mentored about 25 students.
- Designed a coding contest based on MLP and Clustering with updated datasets through the internet.
- Designed assignments, working with RNA-seq datasets and clustering.

Undergraduate Teaching Assistant at the AmirKabir University of Technology   **Tehran, Iran**
- During these courses, I've created assignments, held workshops, and created course materials for some courses depending on my role, helping with more than 50 students in each course on average.

Courses list:
- Computer Networking |Dr.Mohammad Hassan Shirali-Shahreza | Spring 2024
- Computer Networking |Dr.Fatemeh Ziaeetabar| Spring 2024
- Advanced Programming | Prof.Mehdi Ghatee | Spring 2024
- Artificial Intelligence and Workshop | Prof.Mehdi Ghatee | Fall 2023
- Image Processing | Instructor: Dr. Mostafa Shamsi | Spring 2023
- Introduction to the Theory of Computation | Dr.Farzad Didehvar | Fall 2022
- Introduction to Programming | Dr.Farzad Didehvar | Fall 2022
- Advanced Programming |Dr.Mohammad Mahdi Bejani | Fall 2022
- Advanced Programming | Dr.Mohammad Asgaripour | Spring 2021

Interests

- **Blockchain, Cryptocurrencies and DeFi**
- **Software Engineering**
- **Distributed Systems**
- **Big Data**
- **Machine Learning**

Skills

- **Programming Languages**: Python, Solidity, C++, Java, C
- **Software and Tools**: Postgresql, Apache Kafka, Django, Django Rest Framework, Tensorflow & Keras, Pytorch, Data Handling (Numpy, Pandas, …), Data Visualisation (Matplotlib, Seaborn, …), Latex, Git, Github
- **Operating Systems:** Linux, Windows
- **Languages**: Persian (native), English (fluent)

Volunteer Work

Halgheh AUT   **Apr 2022 – March 2023**
Head of Computer Science Chapter   Tehran, Iran
- Halgheh is a scientific magazine organized by the Scientific Association of Mathematics and Computer Science of Amirkabir University of Technology students.
- As the head of the computer science chapter, I led more than 30 people, including the scientific team responsible for reviewing articles and brainstorming article titles, authors, and the editorial and graphics teams.

Computer Webinar Series   **Tehran, Iran**
  Technical and Executive Team Member   May 2022 – Sep 2022
  Technical Team member   Dec 2021 – Apr 2022
- CWS(Computer Webinar Series) is an event held by the Scientific Association of Math & CS of AUT. The webinars were participated by more than 4200 people in the first and more than 9000 in the second phase.
- Designed the website which was viewed by more than 100 people daily and more, and organized webinars.

Nowbahar Contest   **Tehran, Iran (Remote)**
Algorithm Contest Designer   MAR 2022
- Organized the algorithm contest including more than 6 questions, which was participated by more than 600 people.

Personal Projects

- **Action Recognition on UCF101 dataset, using 3D-CNN:**
  https://github.com/SobhanMoghimi/3D-CNN-on-UCF101
- **Multi-Language Communication**:
  https://github.com/SobhanMoghimi/multi-language-communication
- **Expense Sharing App**:
  https://github.com/SobhanMoghimi/Expense-Sharing-App

LICENSES AND CERTIFICATES

- **CS229: Machine Learning:** Course Website
- **Neural Networks and Deep Learning:** Certificate

ACHIEVEMENTS, HONORS, AND AWARDS

- **Ranked 4th among Computer Science students of the Amirkabir University of Technology until now.**
- **Ranked 663rd (Top 0.3%) in the university entrance exam. (2020)**