

MOHAMMAD ARIAEIMEHR

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EDUCATION

Master of Science in Software Engineering **January 20, 2021 - April 20, 2024**
Azad University, Tehran Central Branch

- Thesis title: "Human Activity Recognition with Applied Positional Encoding on Attention Matrix on Each Attention Head." Score: 18.50/20 (4/4)
- CGPA: 15.6/20 (3.3077 /4)

Bachelor of Science in Electronic Technology Engineering **September 22, 2012 - July 23, 2014**
Azad University, Marand Branch

- Completed entrepreneurship project modeling low-power comparisons with a supply voltage of 0.5 V and a frequency of 2 MHz. Score:18/20 (4/4)
- CGPA: 17.09/20 (3.55/4)

Associate Degree in Electronics - General Electronics **September 23, 2010 - July 21, 2012**
Azad University, Soufian Branch

- Designed and simulated an analog-to-digital converter based on a low-voltage comparator for the entrepreneurship project. Score: 20/20 (4/4)
- CGPA: 17.61/20 (3.64/4)

RESEARCH INTERESTS

- Artificial Intelligence
- Deep learning
- Machine learning
- Human Activity Recognition
- Federated Learning
- Autonomous Robots

PUBLICATIONS

Mohammad Ariaeimehr, and Reza Ravanmehr. "Improved the Performance of Human Activity Recognition Using Transformer Model Based on the Positional Encoding." *Multimedia Tools and Applications Journal*. (Under Review)

RESEARCH EXPERIENCES

Human Activity Recognition Using Transformer Model **2022 - 2024**
Azad University, Tehran Central Branch

- Researched Artificial Intelligence techniques, focusing on Deep Learning for Human Activity Recognition (HAR).
- Developed a novel Transformer model approach for HAR, optimizing positional encoding and attention mechanisms to enhance accuracy and reduce training time.
- Integrated Federated Learning to address privacy concerns while maintaining high performance in activity detection.

ACADEMIC PROJECTS

Optimized Sorting Algorithm, Algorithm Design Course **September – December 2021**

- Developed an optimized sorting algorithm for large datasets, improving processing speed by 30%.
- Achieved a project grade of 19/20 (4/4).

Lightweight Operating System for IoT, Advanced Operating Systems Course **September – December 2021**

- Contributed to developing a lightweight operating system tailored for IoT devices.
- Achieved a project grade of 17/20 (4/4).

Automated Testing Framework, Software Testing Course

September – December 2022

- Implemented an automated testing framework for a web application, increasing test coverage to 80%.
- Achieved a project grade of 16/20 (4/4)

Microservices Architecture Design, Software Architecture Course

February – June 2022

- Designed a microservices architecture for a cloud-based application that scales effectively with user demand.
- Achieved a project grade of 17/20 (4/4)

WORK EXPERIENCES

Employed, Behpardaz Hamrah Samaneh Aval (Behsa)

September 2020 - Present

- Maintained and managed Linux-based servers for Mobile Communications Company of Iran, reducing server downtime and enhancing security measures against potential cyber threats.
- Utilized Linux expertise to ensure efficient performance and security.
- Established and maintained Linux servers for Rightel and managed their OCS system.

Internship, Red Crescent Society

April 2014 - June 2014

- Collaborated on developing a rescue robot designed for search operations under rubble.
- Integrated various sensors such as cameras, thermal sensors, and gas detectors to assist the robot in identifying survivors or hazardous conditions.

Internship, Telecommunications Company

May 2012 - July 2012

- Worked in the Main Distribution Frame (MDF), managing cables, installing equipment, and troubleshooting issues.
- Gained insights into telecommunications infrastructure and its critical role in delivering reliable services.

CERTIFICATES

Online Courses:

Deep Learning for Business, Coursera provided by Yonsei University	2024
Python for Data Science, AI, and Development, Coursera provided by IBM	2023
Introduction to Containers, Docker, Kubernetes, and OpenShift, Coursera provided by IBM	2022
Neural Networks and Deep Learning, Coursera offered by DeepLearning.AI	2022
Linux Server Management and Security, Coursera offered by the University of Colorado	2022
DevOps and Build Automation with Python, Coursera offered by LearnQuest	2022

In-Person Courses:

DevOps for Intermediates, CanDo Institute	2023
DevOps for Beginners, CanDo Institute	2022
CCNA Certification, CanDo Institute	2022
Security Plus, CanDo Institute	2022
LPIC2, CanDo Institute	2022
Python Programming, CanDo Institute	2021
LPIC1, CanDo Institute	2020

LANGUAGES

English: Advanced, IELTS Test will be taken on April, 2025

German: A1 level; certificate from Ava-e-Chista Institute.

Italian: B2 level; certificate from University for Foreigners of Siena.

Persian: Native

REFERENCES

Dr Reza Ravanmehr

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