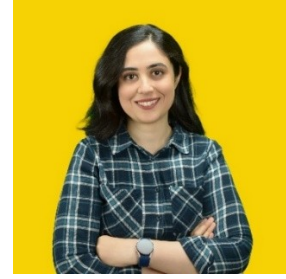


MARYAM MAHMOUDI



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EDUCATION

- **M.Sc. in Electrical Engineering-Communication (System)** | Ferdowsi University of Mashhad^{[[QS Ranking](#)]}, Iran, Sept. 2016 – Nov. 2020, (GPA: 17.17 out of 20)
{Thesis Title: "Assessment of Osteoporosis with Ultrasonic waves Using Artificial Neural Network.", Partially funded by [Iran High-Tech Laboratory Network](#), Thesis Grade: 19 out of 20}
- **B.Sc. in Medical Engineering-Bioelectric** | Sadjad University of Technology, Mashhad, Iran,
Sept. 2011 – Jul. 2015, (GPA: 17 out of 20)
{Thesis Title: "Assessment of different neural networks to diagnose and predict epileptic seizures" Thesis Grade: 20 out of 20}

RESEARCH INTERESTS

- | | |
|------------------------------------|-------------------------------------|
| • Machine Learning / Deep Learning | • Signal Processing / Text Analysis |
| • Optimization | • Image / Audio Processing |
| • Biomedical Signal Processing | • Natural Language Processing |

RESEARCH PROJECTS & EXPERIENCES

- **"Python Developer Specialist in a Statistic application"**, Employer: Inboxino Company, Tehran, Iran, (Sept. 2022 | Present)
- **"Implementation of Deep Learning Methods in a Statistic application"**, Employer: Hamta Rayaneh Research and Information Company, Mashhad, Iran, (Sept. 2021 | June. 2022)
- **"Object Detection with Vision Transformers (ViT) using TensorFlow"**,

Employer: Toos-Tech GmbH, cologne, Germany, (Aug. 2021 | Feb. 2022)

- **"Developing A Clinical Data-Collection Software of Patients for a Private Clinic (Building GUI and Database using Python)"**, Employer: Dr Farzaneh Sobhani (Gynecologist and Chief of the Clinic), Mashhad, Iran, (Sept. 2020 | Jan. 2021)
- **"Assessment of Osteoporosis with Ultrasonic Waves Using Artificial Neural Network"**, *MSc Thesis*, Supervisor: Prof. Zamiri, Computer and Communication Institute, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2015 | Nov. 2020)
- **"Estimation of Bovine Bone Density by Ultrasound and compare it with its micro-CT-scan Images"**, Image Processing course, Lecturer: Prof. Seyedin, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2017 | Jan. 2018)
- **"Bone and Ultrasonic Signal Modeling interaction"**, *Advanced Digital Signal Processing (ADSP)* course, Lecturer: Prof. Seyedin, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Mar. 2017 | Aug. 2018)
- **"Bone imaging with ultrasound waves using finite element method (FEM)"**, *Advanced Digital Signal Processing (ADSP)* course, Lecturer: Prof. Seyedin, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Mar. 2017 | Aug. 2018)
- **"Implementation of Synthetic Aperture Radar (SAR) Image Processing Technique for Visualizing Five Model Ships"**, *Advanced Digital Signal Processing (ADSP)* course, Lecturer: Prof. Seyedin, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Mar. 2017 | Aug. 2018)
- **"An image enhancement (using Image segmentation, Image Augmentation, Filtering, Edge Detection) for face detection using YOLO"**, *Image Processing* Course, Lecturer: Prof. Seyedin, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2017 | Jul. 2018)
- **"Image Encryption-Decryption using Hyper Chaotic System"**, *Data Compression* Course, Lecturer: Prof. Abbas Ebrahimi-Moghaddam, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2017 | Jul. 2018)

- **"An Audio Classification/Filtering using Cepstral Analysis and Techniques"**, *Audio Processing* Course, Lecturer: Prof. Abbas Ebrahimi-Moghaddam, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2017|Jul. 2018)
- **"Time-Series Forecasting: A Predicting Model for NY Stock Prices Using Long Short-Term Memory (LSTM)"**, *Advanced Digital Signal Processing (ADSP)* course, Lecturer: Prof. Seyedin, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Mar.2017|Aug. 2018)
- **"Implementation of Artificial Neural Networks for XOR Problem (using Adeline, Hopfield, MLP, FFNN and Fuzzy Neural Networks)"**, *Artificial Neural Networks (ANNs)* course, Lecturer: Prof. MirMojtaba Mirsalehi, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2016|Jul. 2017)
- **"Artificial Neural Networks for XOR Problem (using Adeline, Hopfield, MLP, FFNN and Fuzzy Neural Networks)"**, *Artificial Neural Networks (ANNs)* course, Lecturer: Prof. MirMojtaba Mirsalehi, Department of Computer Engineering, University of Ferdowsi, Mashhad, Iran, (Sept. 2016|Jul. 2017)
- **Internship:** Working in Shariati Hospital as a medical engineering intern (April 2015|Sept 2016)
- **"Diagnosing and predicting epileptic seizures"**, *An Introduction to Computational and Biological Intelligence* course, Lecturer: Prof. Amin Nouri, Sajjad University of Technology, Mashhad, Iran, (Sept.2013|Jan. 2014)

PUBLICATION

- **"A Demand Response Schema in Industry: Smart Scheduling Approach for Industrial Processes"**, Shafinezhad, Negin, Mahmoudi Maryam, Hamid Abrishami. Accepted to 15th International Conference on Information and Knowledge Technology (IKT). IEEE, 2024.
- **"Controlling Energy Consumption and intelligent Manufacturing through**

an Energy-Aware Scheduling Algorithm in Industrial Sector", Shafinezhad, Negin, Mahmoudi Maryam, Hamid Abrishami, Vahid Baghishani. In 32nd International Conference on Electrical Engineering (ICEE). 2024.

<https://iceeconfer.ir/home/Article/d35375f3-00ba-4b58-8fe3-77d0c01c59f2>

TEACHING EXPERIENCE

- **Teacher Assistant:** "Digital Communication" Course for BSc Students at Ferdowsi University of Mashhad, Iran (2019)
- **Teaching:** "MATLAB", "Python" and "Deep Learning", Lecturer in Hamta Rayaneh Research and Information Company, Mashhad, Iran, (2021 and 2022)
- **Private Teaching:** "English Language", Academic Writing and Speaking (2020 until Now)
- **Teaching (Online Course):** "Machine Learning using Python", (since Nov 2021 up until now)
- **Teaching (Online Course):** "Statistics for Machine Learning" (since Nov 2021 up until now)

CERTIFICATES

- "Machine Learning using Python",
- "Deep Learning via TensorFlow 2.0",
- "Time Series Analysis with Python",
- "Python Programmer Bootcamp" - 365 Data Science Online Program

HONORS AND REWARDS

- **Ranked 7th** (among all GRE participants)
- **Winner** of the "Iran High-Tech Laboratory Network" Scholarship
- **Ranked 3rd** among M.Sc. students at Ferdowsi University of Mashhad
- **Ranked within the Top 1%** among more than 30,000 Participants in the Iranian

University Entrance Exam for MSc level in Electrical Engineering

- **Winner** of the Best dissertation of the year among Medical Engineering Students at Sadjad University of Mashhad

LANGUAGE PROFICIENCY

- **IELTS** (Jan. 15th, 2022): Overall: 6.5 (Speaking: 7, Reading: 6.5, Listening: 6, Writing: 6)
- **GRE** (Jan 26th, 2023): Overall: 333 (Quantitative Reasoning: 169, Verbal Reasoning: 160, Analytical Writing: 4)
- Persian (Native)
- French (A1/A2)

REFERENCES

Dr. Hossein Zamiri-Jafarian ^[scholar]

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