

RESEARCH INTERESTS

Medical Images, Federated Learning, Generative Models, Bioinformatics, Generalization

EDUCATION

Bu-Ali Sina University

MS in Artificial Intelligence & Robotics

◦ CGPA: 18.78/20, GPA: 3.76/4.00, Ranking: 3st out of 8

Hamedan, Iran

Sep 2023 - Feb 2026

Semnan University

BS in Computer Engineering

• CGPA: 17.17/20, GPA: 3.43/4.00, Ranking: 10st out of 90

Semnan, Iran

Sep 2018 - Sep 2022

EXPERIENCE

Robot Intelligence & Vision Lab (Full-Time)

Graduate Student Researcher - Advisor: [Prof. Hassan Khotanlou](#)

Hamedan, Iran

Sep 2023 - Present

- Proposed a Federated learning model for Medical Images classification. Published a conference paper
- Proposed a model for Generalized Deep-Fake detection. Published a conference paper
- Collaborating on a project focused on cloud removal from satellite imagery.

Yasan Academy (Part-Time)

Python and IoT Instructor

Tehran, Iran · Remote

Oct 2021 - Present

PUBLICATIONS

1. **A. Maleki**, M. Raahemi, H. Nasiri, "Breast cancer diagnosis from histopathology images using deep neural network and XGBoost," *Biomedical Signal Processing and Control* 86, 105152, 2023. [[Available Online](#)][[Code](#)]
2. D. Khayatani, **A. Maleki**, H. Nasiri, M. Dorrigiv, "Histopathology image analysis for gastric cancer detection: a hybrid deep learning and catboost approach," *Multimedia Tools and Applications*, 2024. [[Available Online](#)][[Code](#)]
3. **A. Maleki**, H. Khotanlou, "Handling Data Heterogeneity in Federated Medical Images Classification," *16th International Conference on Information and Knowledge Technology (IKT)*, 2025. [[Available Online](#)][[Code](#)]
4. **A. Maleki**, H. Zomorodi, H. Khotanlou, "Hybrid CNN-Based Deepfake Image Detection with Enhanced Cross-Forgery Generalization," *2nd INTERNATIONAL CONFERENCE ON Artificial Intelligence (ICAI)*, 2026. [[Available Online](#)][[Code](#)]

HONORS & AWARDS

- **1st Place** in Rayan International AI Contest, *Sharif University of Technology* May 2025
- **5th Place** in the Computer Vision Track, Tech Olympics 2024, among 455 teams, *Tehran, Iran* Oct 2024
- **Ranked 1st** in the Department of Computer Engineering, Class of 2024, *Bu-Ali Sina University* Mar 2024
- **Outstanding Undergraduate Student** for Academic Excellence, *Bu-Ali Sina University* Jan 2024
- **2nd Place** in the Data-Driven Decision-Making Competition, *Bu-Ali Sina University* May 2023

TEACHING EXPERIENCE

Teaching Assistant at Bu-Ali Sina University

2023 - 2025

- **Under the supervision of Prof. Hassan Khotanlou**
 - Digital Image Processing, Foundations of Computer Vision, Neural Computing & Deep Learning, Pattern Recognition
- **Under the supervision of Dr. Muharram Mansoorizadeh**
 - Machine Learning, Applied Machine Learning, Web Search & Information Retrieval
- **Under the supervision of Dr. Mir Hossein Dezfoulan**
 - Artificial Intelligence & Expert Systems, Algorithm Design

Teaching Assistant at Semnan University

2022 - 2019

- Artificial Intelligence & Expert Systems, Algorithm Design, Data Structure, Fundamentals of Programming, Advanced Programming

SKILLS & TECHNICAL TOOLS

Programming: Python, C/C++

ML/CV Tools & Libraries: PyTorch, OpenCV, Hugging-face libraries, Scikit-Learn, Pandas, NumPy, Matplotlib

Languages: Persian (native), English (Advanced-C1)

Others: Git, $\LaTeX$, Linux, Docker

RELEVANT COURSEWORK

Bu-Ali Sina University

- *Pattern Recognition, Digital Image Processing, Machine Learning, Information Retrieval & Web Search, Neural Computing & Deep Learning, Evolutionary computing, Advanced Topics in AI, Natural Language Understanding*

Coursera

- *Sequence Models, Convolutional Neural Networks, Neural Networks & Deep Learning, Machine Learning*

Quera.org

- *Task-Oriented Course in Version Control with Git, Task-Oriented Course in Fundamentals of Python Programming and Algorithmic Thinking*

RELEVANT PROJECTS

- "Federated Learning in Medical Images Classification," *Master Thesis*. [Code]
- "Federated Learning in Covid-19 Classification," *Master Thesis*. [Code]
- "Deep-Fake Detection and Generalization," *Research Work*. [Code]
- "Gastric Cancer Detection," *Research Work*. [Code]
- "Heart-Disease Prediction," *Research Work*. [Code]
- "Diagnosis Of Breast Cancer By Deep Neural Network," *Research Work*. [Code]
- "Image Classification and Denosing Framework," *DIP Project*. [Code]
- "Cone Optimization using Genetic Algorithms," *EC Project*. [Code]
- "Genre Classification Project Report," *NLU Project*. [Code]
- "Traffic Sign Recognition Using Deep Neural Networks," *DL Project*. [Code]
- "Comparative Analysis of Evolutionary Algorithm Techniques for Solving the Traveling Salesman Problem," *PR Project*. [Code]
- "Colorizing Old Images," *Advanced Topics in AI Project*. [Code]
- "Diagnosing diabetes with artificial intelligence algorithms," *PR Project*. [Code]
- "SemEval-2024 TASK 8 | Binary Human-Written vs. Machine-Generated Text Classification," *Information Retrieval Project*. [Code]

REFERENCES

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