Saeed Shakuri

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Google Scholar
ResearchGate
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Overview

My research interests broadly lie in **Deep Learning**, with some emphasis on **Multimodal Learning** and **Computer Vision**, including but not limited to the medical and healthcare domains. I'm also greatly passionate about expanding my skills to **Explainable/Interpretable AI**. My current research focuses on Computer Vision methods (Object Detection) in detecting lung nodules for lung cancer in CT scan images. Moreover, I have authored a paper in this field and collaborated on two other papers in the context of real-time facial emotion recognition (Image Classification).

Research interests: Deep Learning, Multimodal Learning, Computer Vision, Medical Applications in Deep Learning

Education

University of Science and Culture, Tehran, Iran — Oct. 2021 - Expected May. 2025
M.S., Data Science — Advisor: Dr. Alireza Rezvanian
Thesis: Few-shot object detection.
GPA: 4 out of 4 (19.05 out of 20)

Technical and Vocational University, Tehran, Iran — 2018 - 2021
B.E., Electronics engineering (Shamsipour College) — Advisor: Dr. Mahdiyar Nouri Rezaie
Project: A smart house remote control using Arduino.

Technical and Vocational University, Karaj, Iran — 2016 - 2018
AS, Electronics engineering (Beheshti College)

Publications

(Submitted) Mohammad Saleh, Saeed Masoudnia, **Saeed Shakuri**, and Azadeh Tabatabaei. "Towards Trustworthy Multimodal AI: Review of Fairness, Transparency, and Ethical Implications in Vision-Language Tasks." 8th International Conference on Computers, information technology and applications of artificial intelligence (CITAAI), 2025.

(Published) **Saeed Shakuri** and Alireza Rezvanian. "An Efficient Approach in Detecting Lung Nodules Using Swin Transformer." 19th Iranian Conference on Intelligent Systems (ICIS), IEEE, 2024.

(Published) Omid Ghadami, Alireza Rezvanian, and **Saeed Shakuri**. "Scalable Real-time Emotion Recognition using EfficientNetV2 and Resolution Scaling." 10th International Conference on Web Research (ICWR), IEEE, 2024.

(Under Review) Omid Ghadami, Alireza Rezvanian, **Saeed Shakuri**, and Mohammad Shamami. "Real-time facial emotion recognition in smartphones using EfficientNetV2 and quantization-aware training." Multimedia Tools and Application, Springer.

(In preparation) Saeed Shakuri and Alireza Rezvanian, "Lung Nodule Detection Using Few-shot Learning and Swin Transformer." to be submitted to Computerized Medical Imaging and Graphics.

Teaching Assistant

Information Retrieval on the Web (Graduate class) — Fall 2024
University of Science and Culture

Artificial Intelligence (Undergraduate class) — Fall 2023
University of Science and Culture

Machine Learning (Graduate class) — Fall 2022
University of Science and Culture

Notable Academic Projects

Traffic Sign Detection Using Faster R-CNN, FPN, and Transfer Learning.
Link: https://github.com/SaeedShakuri/Computer-Vision/blob/main/PyTorch_Object_Detection_Transfer_Learning_Traffic_Sign.ipynb

Object detection with Detectron2.
Link: https://github.com/SaeedShakuri/Detectron2

Measuring sentence similarity with a TF-IDF approach.
Link: https://github.com/SaeedShakuri/ML-DL-Projects/tree/main/NLP

Image classification using Transfer Learning, regularization terms, and SGD optimizer with PyTorch.
Link: https://github.com/SaeedShakuri/Computer-Vision/blob/main/Pytorch_Transfer_Learning.ipynb

A classification project using Ensemble Learning with the Abalone dataset.
Link: https://github.com/SaeedShakuri/ML-DL-Projects/tree/main/Ensemble%20Learning

Professional Services

Posters Presented
2nd Symposium on Frontiers in Computer and Data Sciences — Feb. 2025
- An Efficient Approach in Detecting Lung Nodules Using Swin Transformer.

Reviewer
Elsevier - International Journal of Electrical and Computer Engineering — Oct. 2024
Wiley - The Journal of Engineering — Aug. 2023
Elsevier - Data in Brief Journal — Mar. 2023 - Apr. 2023

Judge — Jul. 2023 & Jan. 2024
University of Science and Culture
- Judging the final projects of computer science undergraduate students.

Invited Presenter — Dec. 2022
University of Science and Culture
- Presentation title: An Introduction to Few-Shot Learning

Work Experience

BlazingFallApps, remotely — Mar. 2020 - Nov. 2021
Software Developer
- Developing various mobile applications using the Flutter framework and Dart programming language

Skills

Programming Languages
Python, Dart, C

Softwares and Tools
Google Colaboratory, EndNote, LaTex, MiniTab, VSCode

Technological Proficiencies
PyTorch, Detectron2, OpenCV, NumPy, Matplotlib, Flutter

IELTS Academic (Taken in Sep. 2023)
Overall: 7, Speaking: 7.5, Listening: 7, Writing: 6.5, Reading: 7

Master's Courses

All of the courses received a grade of 4 out of 4:

- Natural Language Processing — Spring 2023
- Computer Vision — Fall 2022
- Computational Social Network — Fall 2022
- Artificial Neural Networks — Spring 2022
- Machine Learning — Spring 2022
- Seminar — Spring 2022
- Data Science Mathematics — Fall 2021
- Advanced Algorithms — Fall 2021
- Applied Data Analysis — Fall 2021

References

References are available upon request.