Saeed Shakuri

saeed.shakuri@stu.usc.ac.ir
Google Scholar
ResearchGate
LinkedIn
Website

Overview

My research interests broadly lie in Deep Learning methodologies within real-world applications and challenges. My current research focuses on Computer Vision methods in detecting lung nodules associated with lung cancer. The highlight of my research is as follows:

- I have authored a paper titled **'An Efficient Approach in Detecting Lung Nodules Using Swin Transformer'** which has been accepted at the 10th ICSIE, 2024 (IEEE).
- I am currently working on employing Few-shot Learning methods in object detection for detecting lung nodules from CT scan images.
- I have also collaborated on two papers focused on the Image Classification task (More info in the Publications section).

Research interests: Deep Learning, Computer Vision, Transformers, Medical Image Processing

Education

University of Science and Culture, Tehran, Iran — Oct. 2021 - Expected Feb. 2025
M.S., Data Science — Advisor: Dr. Alireza Rezvanian
Thesis: Few-shot lung nodule detection.
GPA: 4 of 4 (19.05 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 project with controlling household environmental conditions and switches using Arduino.

Technical and Vocational University, Karaj, Iran — 2016 - 2018
A.S., Electronics engineering (Beheshti College)
Project: A smart house project with a digital lock and an automatic light switch.

Publications

(Accepted) Saeed Shakuri and Alireza Rezvanian. "An Efficient Approach in Detecting Lung Nodules Using Swin Transformer." 10th International Conference on Industrial and Systems Engineering (ICISE), 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".

Teaching Experience

Teaching Assistant, Undergraduate Artificial Intelligence class — Fall 2023
University of Science and Culture

Teaching Assistant, Graduate Machine Learning class — Fall 2022
University of Science and Culture

Notable Academic Projects

Object detection with Detectron2
Language: *Python*, **Link:** https://github.com/SaeedShakuri/Detectron2

Measuring sentence similarity with a TF-IDF approach
Language: *Python*, **Link:** https://github.com/SaeedShakuri/Projects/tree/main/NLP

A few Deep Learning projects using PyTorch (Computer Vision)
Language: *Python*, **Link:** https://github.com/SaeedShakuri/PyTorch.git

A classification project using Ensemble Learning with the Abalone dataset
Language: *Python*, **Link:** https://github.com/SaeedShakuri/Projects/tree/main/Ensemble%20Learning

Professional Services

Reviewer
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.

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

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

Masters Courses

Natural Language Processing — Spring 2023
GPA: 4 / 4

Computer Vision — Fall 2022
GPA: 4 / 4

Computational social network — Fall 2022
GPA: 4 / 4

Artificial Neural Networks — Spring 2022
GPA: 4 / 4

Machine Learning — Spring 2022
GPA: 4 / 4

Seminar — Spring 2022
GPA: 4 / 4

Data Science Mathematics — Fall 2021
GPA: 4 / 4

Advanced Algorithms — Fall 2021
GPA: 4 / 4

Applied Data Analysis — Fall 2021
GPA: 4 / 4

References

References are available upon request.