Saeed Shakuri

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

Overview

My research interests lie broadly 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 lung nodule detection for my master's thesis.
- 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 (GPA 4/4 or 19.05/20) — Advisor: Dr. Alireza Rezvanian
Thesis: Few-shot lung nodule detection.

Technical and Vocational University, Tehran, Iran — 2018 - 2021
B.E., Electronics engineering (Shamsipour college)
Project: An electronic device and a mobile application for monitoring environmental conditions via WiFi.

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

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.

(Submitted) 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, "Few-shot Lung Nodule Detection Using Vision Transformers".

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*, **Environment:** *Google Colaboratory*
Link: https://github.com/SaeedShakuri/Detectron2

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

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

A classification project using Ensemble Learning with the Abalone dataset
Language: *Python*, **Environment:** *Google Colaboratory*
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
- Conducting assessment for computer science bachelor students' final projects, followed by assigning grades.

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

PergasTeb, remotely — May. 2020 - Oct. 2020
Software Developer
- Developing a medical android application using the Flutter framework

Skills

Programming Languages
Python, Dart, C

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

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.