Saeed Shakuri



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

M.S., Data Science

Thesis: Few-shot lung nodule detection.

GPA: 4 of 4 (19.05 of 20)

Technical and Vocational University, Tehran, Iran

B.E., Electronics engineering (Shamsipour College)

Project: A smart house remote control using Arduino.

Technical and Vocational University, Karaj, Iran

A.S., Electronics engineering (Beheshti College)

2018 - 2021

Advisor: Dr. Mahdiyar Nouri Rezaie

Oct. 2021 - Expected Feb. 2025

Advisor: Dr. Alireza Rezvanian

2016 - 2018

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.

(<u>Published</u>) Omid Ghadami, Alireza Rezvanian, and <u>Saeed Shakuri</u>. "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

University of Science and Culture

Fall 2022

Notable Academic Projects

Object detection with Detectron2

 ${\bf Language:}\ \ {\it Python},\ \underline{{\bf Link}}{:}\ {\tt https://github.com/SaeedShakuri/Detectron2}$

Measuring sentence similarity with a TF-IDF approach

 $\underline{\textbf{Language:}} \ \ \textit{Python,} \ \underline{\textbf{Link}} : \ \texttt{https://github.com/SaeedShakuri/Projects/tree/main/NLP}$

A few Deep Learning projects using PyTorch (Computer Vision)

 $\underline{\textbf{Language:}} \hspace{0.2cm} \textit{Python,} \hspace{0.2cm} \underline{\textbf{Link}} : \texttt{https://github.com/SaeedShakuri/PyTorch.git}$

A classification project using Ensemble Learning with the Abalone dataset

<u>Language</u>: Python, <u>Link</u>: 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

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 GPA: 4 / 4	Spring 2023
Computer Vision GPA: 4 / 4	Fall 2022
Computational social network GPA: 4 / 4	Fall 2022
Artificial Neural Networks GPA: 4 / 4	Spring 2022
Machine Learning GPA: 4 / 4	Spring 2022
Seminar GPA: 4 / 4	Spring 2022
Data Science Mathematics GPA: 4 / 4	Fall 2021
Advanced Algorithms GPA: 4 / 4	Fall 2021
Applied Data Analysis GPA: 4 / 4	Fall 2021
References	

References are available upon request.