

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)	Oct. 2021 - Expected Feb. 2025 Advisor: Dr. Alireza Rezvanian
Technical and Vocational University, Tehran, Iran B.E., Electronics engineering (Shamsipour college) Project: A smart house project with monitoring and controlling household environmental conditions and switches using Arduino.	2018 - 2021
Technical and Vocational University, Karaj, Iran A.S., Electronics engineering (Beheshti College) Project: A smart house project with a digital lock and an automatic light switch.	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.
(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 University of Science and Culture	Fall 2023
Teaching Assistant, Graduate Machine Learning class University of Science and Culture	Fall 2022

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

University of Science and Culture

Jul. 2023 & Jan. 2024

- 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.