Saeed Shakuri (Shakurimoghaddam)

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ResearchGate
Home Page
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Overview

My research interests broadly lie in **Deep Learning** within real-world applications, including but not limited to medical and healthcare domains, with some emphasis on **Multimodal Learning**, **Computer Vision**, and **NLP** (including **LLMs**), while examining their **Explainability** and **Interpretability**. My thesis focused on Computer Vision methods (Object Detection) in detecting lung nodules through CT scan images.

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

Education

- **Masters of Computer Engineering - Data Science** — 2021 – 2025
  University of Science and Culture, Tehran, Iran
  Advisor: Dr. Alireza Rezvanian
  Thesis: Object detection using Few-shot Learning and Vision Transformers.
  GPA: 4 out of 4 (19.05 out of 20)
  Thesis grade: Excellent
- **Bachelors of Electronics Engineering** — 2018 - 2021
  Technical and Vocational University, Tehran, Iran (Shamsipour College)
  Advisor: Dr. Mahdiyar Nouri Rezaie
  Project: A smart house remote control using Arduino
- **Associate of Electronics Engineering** — 2016 - 2018
  Technical and Vocational University, Karaj, Iran (Beheshti College)

Publications

(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."

Teaching Assistant

- **Information Retrieval on the Web (Graduate class)** — Fall 2024 & Fall 2025
  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

- **An Efficient Approach in Detecting Lung Nodules Using Swin Transformer**
  Link: github.com/SaeedShakuri/Computer-Vision/blob/main/Lung_Nodule_Detection.ipynb
- **Traffic Sign Detection Using Faster R-CNN, FPN, and Transfer Learning**
  Link: github.com/SaeedShakuri/Computer-Vision/blob/main/PyTorch_Object_Detection_Transfer_Learning_Traffic_Sign.ipynb
- **Object detection with Detectron2**
  Link: github.com/SaeedShakuri/Detectron2
- **Image classification using Transfer Learning, regularization terms, and SGD optimizer with PyTorch**
  Link: github.com/SaeedShakuri/Computer-Vision/blob/main/Pytorch_Transfer_Learning.ipynb
- **A classification project using Ensemble Learning with the Abalone dataset**
  Link: github.com/SaeedShakuri/ML-DL-Projects/tree/main/Ensemble%20Learning

Professional Services

- **Posters Presented** — Feb. 2025
  2nd Symposium on Frontiers in Computer and Data Sciences
  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

Skills

- **Programming Languages**
  Python, Dart, C
- **Software and Tools**
  Google Colaboratory, EndNote, MiniTab, VSCode
- **Technological Proficiencies**
  PyTorch, Detectron2, OpenCV, NumPy, Matplotlib, Flutter
- **IELTS Academic**
  Overall: 7, Speaking: 7.5, Listening: 7, Writing: 6.5, Reading: 7

Master's Courses

All of the courses received an A+ grade:

- 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

Work Experience

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

References

References are available upon request.