

Niloofar Azad

Tel: (+98) 902-2008-894 | LinkedIn: [Niloofar Azad](#) | GitHub: [Niloofar Azad](#)

Email: niloofar.azadh@gmail.com

EDUCATION

Sept. 2018 – Feb. 2023

Bachelor of Science, Computer Engineering

Islamic Azad University, North Tehran Branch, Tehran, Iran

- **GPA:** 17.27/20.00 – 3.49/4.00
- **GPA Last 2 Years:** 3.73/4.00
- **Research Project:** Multiclass Semantic Segmentation on Unbalanced Aerial Imagery Using U-Net ([Github Link](#))
- **Supervisor:** Prof. Maryam Abedi

RESEARCH INTERESTS

- Machine Learning
- Computer Vision
- Video Analysis
- Deep Learning
- Medical Image Processing and Analysis

TECHNICAL SKILLS

- **Specialized Areas:** Machine Learning, Deep Learning, Computer Vision:
 - Image Segmentation (CNN, U-net)
 - Video Classification (RNN, LSTM)
 - Object Detection and Tracking (YOLO, Mask-RCNN)
- **Programming Languages:** Python (TensorFlow (Keras), PyTorch, OpenCV, sci-kit-learn, Pandas, NumPy), C/C++, MATLAB, JavaScript
- **Languages:** Proficiency in **English**, Native in **Persian**
 - **IELTS (08/30/2023):** Overall 7 (Speaking: 6.5, Writing: 7, Reading: 7, Listening: 7)

EXPERIENCES

Research Experiences

- **Research Assistant (September 2023 -)**
 - **Institution:** Islamic Azad University, North Tehran Branch
 - **Research Project:** A GAN-based Data Augmentation Approach for Increased CNN Performance in Alzheimer's Disease Classification Using Blood Plasma Images. (In preparation)
 - **Responsibilities:**
 - EDA on medical images
 - Classification with CNN, SVM
 - Image classification with transfer learning (EfficientNet)

Working Experiences

- **Front-end web development intern** at [Balvin](#) Start-up – Iran (Nov. 2019 – Apr. 2020)
Responsibilities: Developing and designing web applications using JavaScript and React.js

SELECTED PROJECTS

- **Human Pose Estimation and Action Recognition Using Mediapipe and LSTM (Sept. 2023)**
Real-time video classification for human action recognition using RNN architecture. ([Github Link](#))
- **Vehicle Detection & Tracking using Yolov8 & a Custom Object Tracker (Apr. 2023)** ([Github Link](#))
- **Real-time Face Emotions and Gender Recognition Using CNN and ResNet50 model (Mar. 2022)**
A real-time vision system for face detection, gender and facial expression classification using CNN architecture. ([Github Link](#))
- **Breast Cancer Classification Using Supervised Machine Learning Algorithms and Artificial Neural Network (Jun. 2022)**
Comparative analysis of performance of machine learning algorithms in breast cancer classification. ([Github Link](#))

SELECTED WORKSHOPS/COURSE CERTIFICATIONS

- **Machine Learning Specialization** – Coursera (2023)
- **Neural Networks and Deep Learning** – Coursera (2023)
- **Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization** – Coursera (2023)
- **Machine Learning** – Infinite Modern Technology (2022)
- **Python Basic University of Michigan** – Coursera (2022)
- **Programming C++** – Tehran Institute of Technology (2019)

CORE COURSES

- **Computer Fundamentals and Programming:** 19.5 (4/4)
- **Advanced Computer Programming:** 16.5 (4/4)
- **Engineering Mathematics:** 17.5/20 (4/4)
- **Fundamentals of Computational Intelligence:** 17.75/20 (4/4)
- **Discrete Mathematics:** 17.25/20 (4/4)
- **Programming Languages Design and Implementation:** 20/20 (4/4)

HONORS AND AWARDS

National University Entrance Exam, 2018

Ranked within the top 2% of the Iranian University Entrance Exam for Bachelor's degree among 642,228 students.

REFERENCES

1. [Prof. Shabnam Jazaeri](#), Assistant Professor, Department of Electrical Engineering and Computer Science, Islamic Azad University, North Tehran Branch, Iran
Email: s.jazaeri@iau-tnb.ac.ir
2. [Prof. Sepideh Adabi](#), Assistant Professor, Department of Electrical Engineering and Computer Science, Islamic Azad University, North Tehran Branch, Iran
Email: sepideh_adabi@iau-tnb.ac.ir
3. [Prof. Maliheh Sabeti](#), Assistant Professor, Department of Electrical Engineering and Computer Science, Islamic Azad University, North Tehran Branch, Iran
Email: sabeti@shirazu.ac.ir
4. [Prof. Maryam Abedi](#), Assistant Professor, Department of Electrical Engineering and Computer Science, Islamic Azad University, North Tehran Branch, Iran
Email: m.abedi@nanogune.eu