ARASH HEIDARI

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EDUCATION

MS.c in Digital Electronics Systems
Iran University of Science and Technology

📅 2016 – 2018   📍 Tehran, Iran

GPA : 91
Thesis: DPA-Resistant and Low Power Cryptography in IoT Devices.

BS.c in Electronic Engineering
Iran University of Science and Technology

📅 2012 – 2016   📍 Tehran, Iran

GPA : 81
Thesis: Controlling a Monitoring System with the help of Internet.

EXPERIENCE

AI Researcher
Iran University of Science and Technology

📅 Jan 2019 – Present   📍 Tehran, Iran

My main responsibility as an AI-Researcher was to carry out AI-based projects (mostly Computer Vision tasks) with the collaboration of PhD and master's students under supervision of Dr. Sattar Mirzakuchaki. Teaching machine learning, deep learning, and python programming was my other responsibility.

Translator
KookMobile Website

📅 May 2019 – July 2019   📍 Tehran, Iran

I translated more than 50 articles about smartphones and other new digital types of equipment such as smartwatches from English to Persian for the Kook Mobile website.

Teaching Assistant
Iran University of Science and Technology

📅 Sep 2015 – Feb 2016   📍 Tehran, Iran

My main responsibility was to help students in the computer architecture course to pass the final test. In the end, I developed a simple computer (presented in Morris Mano book) with Verilog HDL.

PUBLICATIONS

S.Mirzakuchaki, A.Heidari, "Ultra-Low Power Symmetric Pass Gate Adiabatic Logic with CNTFET for Secure IoT Applications," Iranian Journal of Electrical and Electronic Engineering, Volume 15, Issue 2 Pages 275-281, 2019.

ABOUT ME

I am quite fond of Artificial Intelligence; hence to become a specialist in this field, I started learning about it since I was studying my master's. I am familiar with most of the AI fields such as Deep Learning, Computer Vision, Reinforcement Learning, and Natural Language Processing. I also have excellent interpersonal skills, which enables me to interact easily with my colleges and clients. I am eager to be challenged to grow and further improve my skills. Apart from all of these, I am a good team-player, a fast learner, and an energetic person.

FIELDS OF INTEREST

GANs   Computer Vision
Reinforcement Learning   Explainable AI
Recommender Systems
Natural Language Processing

SKILLS

TensorFlow   PyTorch   Keras   SQL
scikit-learn   Spark   OpenCV   NLTK
spaCy   GUI Development   NumPy
Pandas   Matplotlib   Apache Airflow
Tableau   Hadoop   Git   Docker
Embedded Software Development   TFX
Linux   CUDA   Plotly   Flask   AWS

DEV-LANGUAGES

Python ●●●●●
JavaScript ●●●●●
C/C++ ●●●●○
R ●●●●○
MATLAB ●●●○○

LANGUAGES

Persian ●●●●●
English ●●●●●
German ●●●●○

PROJECTS

DeepGUI
Open Source Project

DeepGUI is a graphical user interface which enables the user to produce python code for their deep learning project. The latest version of this application v0.2.0 is capable of generating code for both PyTorch and TensorFlow frameworks, but only sequential models.
GitHub link: https://github.com/heidariarash/DeepGUI

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Alpha Omega
Open Source Project

Alpha Omega is a comprehensive AI library still under development. The end goal of this project is to have all the AI-related algorithms, such as Computer Vision, NLP, and classical Machine Learning algorithms in one package.
GitHub link: https://github.com/heidariarash/Alpha-Omega

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Courthouse
Open Source Project

Courthouse is a tool to evaluate the fairness of an AI model. This project is still under development.
GitHub link: https://github.com/heidariarash/Courthouse

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Real-Time Emotion Detection
MSc Project

The goal of this project was to build a deep learning model on Raspberry Pi, which was capable of detecting of the emotions (such as happiness, anger etc.) real-time using an input video. OpenCV and Keras were used to achieve this goal.

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Transportation Modes Classification
MSc Project

The goal of this project was to classify the transportation mode of a person with the help of a neural network and based on GPS datapoints. RNN and CNN were used in this project.

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Detection and Classification of Eye-Related Diseases
MSc Project

I was a consultant in this project. The goal was to detect if the eye is healthy based on an image from the retina. If an illness was detected, the classification of the illness was the other goal.

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Monitoring of the Voltage of a Motor
MSc Project

The goal of this project was to monitor the voltage of a motor and save the results. To achieve this goal, I used two ESP8266 microcontrollers. The first one, read and sent the voltage using TCP protocol to the second one, which was connected to the PC. The second ESP8266 transfers the received data through UART communication to PC. There was a GUI (developed using PyQt) running on the PC, which shows and saved the data.