Reza **Karbasi**

MACHINE LEARNING SPECIALIST · ELECTRICAL ENGINEER

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Education

TU(Tehran University)   *Tehran, Iran*

M.S. IN COMPUTER ENGINEERING - ARTIFICIAL INTELLIGENCE   *Sep. 2019 - Jan. 2022*

- GPA : 18.83/20
- Final Project : Earthquake early warning system using smartphones
  - Supervisors : Dr. Hadi Moradi, Dr. Mahmoud Reza Hashemi
  - Consultant : Dr. Ali Moradi

KNTU(Khajeh Nasir Yoosi University of technology)   *Tehran, Iran*

B.S. IN ELECTRICAL ENGINEERING - CONTROL   *Sep. 2014 - Jan. 2019*

- GPA : 17.4/20
- Rank 2/30 in control - Rank 10/130 in total
- Final Project : Fault detection in gas turbine
  - Supervisor : Dr. Mahdi Aliyari

Experience

Hara Company   *Tehran, Iran*

ML ENGINEER   *Jul. 2022 - now*

- Working on speech to text models
- Analyzing models based on different tests
- Making a deep learning model to generate sound's metadata

Aras Academy   *Tehran, Iran*

INSTRUCTOR / TEACHER   *Jun. 2021 - Aug. 2021*

- Supervisor : Prof. Hamid D. Taghirad
- Course : Introduction to Reinforcement Learning
- Link to the website : http://aras.kntu.ac.ir/education/aras-academy/

QDM   *Tehran, Iran*

DESIGNER OF A TRADER BOT   *Jun. 2021 - Aug. 2021*

- Design the trade strategies in Metatrader
- Setting hyperparameters using Reinforcement Learning (DQN)
- Highlights   Python , MQ4 , Deep Q Network , RL , Ichimoku , Backtrader , Multithread

Raiwan   *Tehran, Iran*

ELECTRONIC ENGINEER , DEVICE DESIGNER   *Dec. 2017 - Jun. 2019*

- Participated in 2 Projects :
  - Inner hospital communication : Board design, programming STM32
  - Taxi paying device : mechanical design, programming ESP32
  - Highlights   stm32f103 , stm32Cube , Altium designer , keil , CNC
- Link to the website : http://raiwan.ir/

KN2C   *Tehran, Iran*

ELECTRONIC AND CONTROL ENGINEER   *May 2015 - Sep. 2017*

- Supervisor : Prof. Hamid D. Taghirad
- Small Size League(SSL)
- Notable Projects :
  - Design of robot's electronic
  - Kalman filter for position filtering
  - Highlights   Xmega , PCB design , PID controller , Kalman filter , Soldering , FPGA
- Link to the website : http://kn2c.aras.kntu.ac.ir/

Honors & Awards

2019 **Ranked 3rd,** Snake league in Nasir Cup
2019 **Ranked 28th,** The national university entrance exam for M.Sc. degree in Artificial Intelligence
2016 **Ranked 5th,** Small Size League(SSL) in RoboCup Iran Open
2014 **Ranked 888th,** The national university entrance exam for B.Sc. degree

Notable Projects

Brain Activity Recognition using EEG

RESEARCHER *Feb. 2021 - Aug. 2021*

Supervisor : Dr. Mohammadreza Abolghasemi Dehaqani

Duty : Playing a video game using EEG

My task : Implementation of Adaptive neuro fuzzy inference system (ANFIS) algorithm on a classification task

Data Mining on California hospitalization dataset

DATA ANALYST *Nov. 2020*

Employer : Ponisha (It's a freelance website)

Tasks : Finding the surgery results dataset, analyze the results of surgeries

Digikala Comments Analysis

RESEARCHER *May 2020*

Project Website : https://github.com/rezakarbasi/digikala-crawler

Duty : Finding customer's opinion about a product using the product's comments

My task : crawl Digikala website , designing a sentiment analysis network

Determining power of Telecom's stations using RL

RESEARCHER *Sep 2021*

An agent designed using a deep RL method (A3C)

Notable Course Projects

Soroush App posts analysis

DESIGNING WEBSITE CRAWLER *Big Data*

Project Website : https://github.com/rezakarbasi/BigDataCourse-FinalBS

Duty : Analyzing the Soroush's public channel posts using big data

My Task : Crawl the app, cleaning the data and send it to Kafka

Semantic Segmentation

IMPLEMENTING AND LEARNING SEGNET NETWORK *Deep Neural Networks*

Image Captioning

USING RESNET18 AND LSTM MODEL *Deep Neural Networks*

English to Persian translator

USING TRANSFORMER MODEL *Deep Neural Networks*

An RL agent for trading in stock market

IMPLEMENTING RL FOR TRADING IN STOCK MARKET *Reinforcement Learning*

Teaching Assistant

Deep Neural Networks

INSTRUCTOR : DR. RESHAD HOSSEINI *Spring 2022*

Introduction to Reinforcement Learning

INSTRUCTOR : PROF. MAJID NILI AHMADABADI *Fall 2021*

System Identification

INSTRUCTOR : PROF. BABAK NADJAR ARAABI *Spring 2020*

Notable Courses

Pattern Recognition, 20/20   Dr. Hamid Abrishami Moghaddam

Machine Vision, 19.25/20   Dr. Rashad Hosseini

Reinforcement Learning, 20/20   Prof. Majid Nili Ahmadabadi

Artificial Intelligence, 18.75/20   Dr. Hadi Moradi

Big Data, 19.3/20   Dr. Masoud Asadpour

Deep Neural Network, 18/20   Dr. Rashad Hosseini

System Identification, 18.5/20   Prof. Babak Nadjar Araabi

Interests

Watching movies,

Reading books,

Playing Football,