

# Reza Karbasi

MACHINE LEARNING SPECIALIST · ELECTRICAL ENGINEER

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## Education

### TU(Tehran University)

M.S. IN COMPUTER ENGINEERING - ARTIFICIAL INTELLIGENCE

Tehran, Iran

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(Khaje Nassir University of technology)

B.S. IN ELECTRICAL ENGINEERING - CONTROL

Tehran, Iran

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

ML ENGINEER

Tehran, Iran

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

INSTRUCTOR / TEACHER

Tehran, Iran

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

DESIGNER OF A TRADER BOT

Tehran, Iran

Apr. 2019 - Jan. 2020

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

### Raiwan

ELECTRONIC ENGINEER , DEVICE DESIGNER

Tehran, Iran

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

ELECTRONIC AND CONTROL ENGINEER

Tehran, Iran

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

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### 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

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### 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

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### 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

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**Pattern Recognition**, 20/20

**Machine Vision**, 19.25/20

**Reinforcement Learning**, 20/20

**Artificial Intelligence**, 18.75/20

**Big Data**, 19.3/20

**Deep Neural Network**, 18/20

**System Identification**, 18.5/20

Dr. Hamid Abrishami Moghaddam

Dr. Rashad Hosseini

Prof. Majid Nili Ahmadabadi

Dr. Hadi Moradi

Dr. Masoud Asadpour

Dr. Rashad Hosseini

Prof. Babak Nadjar Araabi

## Interests

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Watching movies,

Reading books,

Playing Football,