Mohammad Doosti Lakhani

Computer Engineering Student

+989379156599

nikronic.github.io @ nikan.doosti@outlook.com @ m_doostilakhani@comp.iust.ac.ir

EDUCATION

Iran University of Science and Technology

MS, Artificial Intelligence

Best university of the country in 2016

Jun 2019 - In progress — Tehran, Iran

University of Guilan

B.Sc in Software Engineering, GPA: 18.63/20

Sep 2015 – May 2019 — Rasht, Iran

Ranked 3rd in class - (Transcript)

Malek Ashtar High School

Diploma in Mathematics and Physics Discipline, GPA: 19.50/20

Sep 2011 – May 2014 — Karaj, Iran

HONORS AND AWARDS

- **Ranked *3rd* in class, B.Sc**
  2014-2019
- ***Full Scholarship*, B.Sc, University of Guilan**
  Aug 2015
- **Ranked *1st* in all years of high school**
  2011 - 2015
- ***Exceptional Talent* of Department of Computer Engineering - University of Guilan**
  2015
- **Accepted as Exceptional Talent at Department of Computer Engineering - Iran University of Science and Technology**
  2019
- **Among top *0.19 percent* of PyTorch Forum members(Profile)**
  Nov 2018 - Nov 2019

WORK EXPERIENCES

Matrix Company

Member of Hardware Failure Team

July 2016 – March 2018 — Tehran, Iran

I was working on assembling procedure and I and other members detect failures and repair them (Website).

TEACHING ASSISTANT EXPERIENCES

University of Guilan

Computational Intelligence — Head TA

Sep 2018 – Feb 2019 — Rasht, Iran

Instructor: Dr. M. Shakeri

My responsibilities were designing and assessment evolutionary algorithms projects and teaching Python programming language (Class Materials).

University of Guilan

Algorithms Design (2 times) — Head TA

Sep 2017 – Jul 2018 — Rasht, Iran

Instructor: Dr. M. Shakeri

My responsibility was assessment of student assignment.

RESEARCH INTERESTS

- Deep learning
- Evolutionary Algorithms
- Digital Image Processing
- Computer Vision
- Reinforcement Learning

SKILLS

Python	●●●●●
PyTorch	●●●●●
Git/VCS	●●●●●
Teamwork	●●●●●
Scipy	●●●●
Sklearn	●●●●
MS Office	●●●●
Powershell	●●●●
Windows	●●●●
Linux	●●●
VHDL	●●●
Tensorflow	●●●
SQL	●●●
C++	●●
Wolfram	●●
Scala	●

University of Guilan

Advanced Programming TA Head TA

Feb 2018 – Jul 2018 Rasht, Iran

Instructor: Dr. S. A. Mirroshandel
My responsibilities were as follow :

- Teaching GUI design, object-oriented and socket programming using java.
- Designing assignments.
- Assessment of students' assignments.

COMMUNITY

Rasht Public AI Community

Lecturer

Oct 2018 Rasht, Iran

I usually give lecture for student from different field of studies. I gave a lecture in last meet up and I scheduled other lectures for coming meetings. These meeting are free for all, always!
The materials of these meetings can be found in here.

B.Sc FINAL PROJECT

"Deep Context-Aware Descreening and Rescreening of Halftone Images" Implementation

Tae-hoon Kim and Sang Il Park. 2018. ACM Trans. DOI.

Supervisors:

- **Dr. Mahdi Aminian - University Of Guilan (Homepage)**
- **Dr. Vahid Babaei - Max Planck Institute for Informatics (Homepage)**

You can access different parts of implementations of this paper using below repositories:

- github.com/Nikronic/Places365-Preprocessing
- github.com/Nikronic/Halftone-Algorithms
- github.com/Nikronic/CoarseNet - UNet (arxiv)
- github.com/Nikronic/ObjectNet - PSPNet (arxiv)
- github.com/Nikronic/EdgeNet
- github.com/Nikronic/DetailsNet

CERTIFICATES

Deep Learning Specialization

Coursera, by Andrew Ng

Deep Learning Specialization consists of five different courses:

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter tuning Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

LANGUAGES

Persian (Native)
English

HOBBIES

Learning Cultures | Gaming | Music

REFERENCES

Dr. Mojtaba Shakeri
Research Scientist at Singapore Institute of Manufacturing Technology (SIMTech)
Singapore, Singapore
mojtaba_shakeri@SIMTech.a-star.edu.sg
(65) 6501 1800

Dr. Mahdi Aminian
Assistant Professor at Universtiy of Guilan
Rasht, Iran
mahdi.aminian@guilan.ac.ir

Dr. Vahid Babaei
CAM group leader at Max Planck Institue for Informatics
Saarbrücken, Germany
vbabaei@mpi-inf.mpg.de

Dr. Seyed Abolghasem Mirroshandel
Assistant Professor at University of Guilan
Rasht, iran
mirroshandel@guilan.ac.ir

Machine Learning Course

Coursera, by Andrew Ng

Nov 2018

Natural Language Processing

Coursera, by Higher School of Economics

Aug 2018

Deep Learning Summer School 2018

University of Tehran

Aug 2018

SELECTED ACCOMPLISHED PROJECTS

- **Optimized Multi-Depot Vehicle Routing Problem**: The main idea of paper is to assign customers to specific depots and also assigning them an optimal route with respect to some constraints. We modified the proposed genetics method in reference paper and we have got better results. (Repo)
- Open Source Contributer
  I am highly motivated at participating to open source project to help myself and other developers to build better tools for solving real life issues, from contributing to small docs to PyTorch framework on Github.
- **Clustering Algorithms Based on Fuzzy Systems & Cohort Intelligence**: In this study, we are trying to apply fuzzy systems to optimize hyperparameters of problem. The main idea of paper is to cluster data based on Cohort Intelligence (Genetics) and K-means clustering. (currently suspended)
- **Coursera Machine Learning Course by Stanford Implementation using Python from scratch**: In this project, I implemented all assignments in vectorized form using only Numpy library (Repo).
- **Apply Different Machine Learning Models using SKlearn**: I used SKlearn to fit different machine learning models on different tasks and showed the its usages (Repo).
- **News Classification**: Final project of Natural language processing course by University of Guilan (Repo).
- **Music Recommender**: Implemented with Python and it was the final project of Artificial Intelligence course.