

# Mohammad Doosti Lakhani

Computer Engineering Student

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## EDUCATION

University of Guilan

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

Sep 2015 - May 2019 (Expected) Rasht, Iran

Ranked 3<sup>th</sup> in class- [Transcript](#)

Malek Ashtar High School

Pre-University Diploma in Mathematics, GPA: 19.60/20

Sep 2014 - May 2015 Karaj, Iran

Malek Ashtar High School

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

Sep 2011 - May 2014 Karaj, Iran

## 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

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)

Sep 2017 - Jul 2018 Rasht, Iran

Instructor: Dr. M. Shakeri

My responsibility was assessment of student assignment.

## HONORS AND AWARDS

Ranked 3<sup>th</sup> in class Present

Full Scholarship, B.Sc, University of Guilan Aug 2015

Ranked 1<sup>st</sup> in all years of high school 2011 - 2015

Exceptional Talent of Department of Computer Engineering - University of Guilan 2015

Exceptional Talent of Department of Computer Engineering - Iran University of Science and Technology 2019

## 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

📅 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 student assignments.

## COMMUNITY

### School of AI - Rasht Chapter

**Lecturer at School of AI**

📅 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.

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](https://github.com/Nikronic/Places365-Preprocessing)
- [github.com/Nikronic/Halftone-Algorithms](https://github.com/Nikronic/Halftone-Algorithms)
- [github.com/Nikronic/CoarseNet](https://github.com/Nikronic/CoarseNet) - UNet ([arxiv](#))
- [github.com/Nikronic/ObjectNet](https://github.com/Nikronic/ObjectNet) - PSPNet ([arxiv](#))
- [github.com/Nikronic/EdgeNet](https://github.com/Nikronic/EdgeNet)
- [github.com/Nikronic/DetailsNet](https://github.com/Nikronic/DetailsNet)

📅 In progress

## 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

📅 In progress

## LANGUAGES

Persian (Native)

English



## HOBBIES

Learning Cultures

Gaming

Music

## REFERENCES

**Dr. Mojtaba Shakeri**

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**Dr. Mahdi Aminian**

@ mahdi.aminian@guilan.ac.ir

**Dr. Seyed Abolghasem Mirroshandel**

@ mirroshandel@guilan.ac.ir

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## Machine Learning Course

Coursera, by Andrew Ng

📅 Nov 2018

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## Natural Language Processing

Coursera, by Higher School of Economics

📅 Aug 2018

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## Deep Learning Summer School 2018

University of Tehran

📅 Aug 2018

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# SELECTED ACCOMPLISHED PROJECTS

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- **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](#))
- **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.