# Kiarash Aghakasiri

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## PERSONAL DETAILS

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## **INTEREST**

• Machine Learning / Artificial Intelligence

- Natural Language Processing
- Computer Vision
- Data Mining
- Bioinformatics

#### **EDUCATION**

#### Iran University of Science and Technology

Tehran, Tehran, Iran September 2015 - Expected July 2019

BSc. Computer Engineering concentration on AIRank 3rd among Iran universities by QS Ranking

(GPA = 3.84)

#### Allameh-Helli (NODET)

Tehran, Tehran, Iran

MidSchool, HighSchool, PreUniversity
National Organization for Development of Exceptional Talent

September 2008 - June 2015

(Diploma GPA = 4)

#### PERSONAL ACHIEVEMENTS

- Succeeded to rank second top student in B.S. with GPA 17.75/20 = 3.84/4
- Winning an award for being the top student of the year 2016 and 3rd top student of the year 2017
- Being in the first 0.1% in national graduate school entrance examination
- Gain an opportunity for going to MSc without taking the national entrance examination from two of Iran best universities (Sharif University of Technology and Iran University of Science and Technology)
- Participate in university booth in the "18th Exhibition of Research, Technology Achievements and Techmart" and Succeeded to Achieve one of the 12th best booths in the exhibition

- Win a second place in intra-university ACM tournament
- Being a member of National Organization for Development of Exceptional Talent for ten years
- Admission at the first stage of Mathematics and Computer Olympiads in high school

### **ACADEMIC EXPERIENCE**

#### Iran University of Scinece and Technology

Tehran, Tehran, Iran

Machine Learning Researcher

June 2018 - Present

Research on using transfer learning for hasten the converge time of reinforcement learning for ATARI games

Supervisor: Dr. Nasser Mozayani

Data Mining Researcher

January 2016 - June 2018

Fraud Detection on German Bank Dataset and Analysing of word association using cognitive science and work as a team for gathering a data set of word association norms for persian language

Supervisor: Dr. Hossein Rahmani

 $Computational\ Intelligence\ Tutor$ 

January 2019 - Present

Teaching Neural Networks basics to undergraduate students and assigning small projects in Keras (Python)

Instructor: Dr. Nasser Mozayani

Natural Language Processing Tutor

January 2019 - Present

designing small projects for undergraduate student in regard to Persian language

Instructor: Dr. Sauleh Eetemadi

website: https://sauleh.github.io/nlp97/

Artificial Intelligence and Expert Systems Tutor

September 2018 - January 2019

Teaching undergraduate students, assigning weekly assignments and give them projects in python

Instructor: Dr. Mohammad Taher Pilehvar

website: https://iust-courses.github.io/ai97/

Theory of Languages & Automata Tutor

September 2017 - January 2018

Teaching undergraduate students theoretical aspects of Automata, giving them homework, and checking the answers

Instructor: Dr. Hossein Rahmani

Foundations of Computer & Programming Tutor

September 2016 - January 2017

Teaching undergraduate students python programming and giving them small projects

Instructor: Dr. Adel Torkaman Rahmani

### **PUBLICATIONS**

• Arezoo ZARE, Hossein RAHMANI, Fateme KARIMKHANI, Raana SAHEBNASSAGH, Kiarash AGHAKASIRI. Tarvajeh: Free-association norms for Persian words (Submitted)

#### **TECHNICAL SKILLS**

#### Programming and Scripting Languages

Proficient at: PYTHON, C++, C, PASCAL Familiar with: ASSEMBLY 8086, MATLAB

#### **Operating System**

Mac OSX, Windows, Linux

#### **Tools and Frameworks**

Learning Tools: TensorFlow, Numpy, Keras, OpenCV, Scikit-Learn

NLP Tools: VOWPAL WABBIT, OPENNMT

Web Application Tools: BeautifulSoup, Selenium, Scrapy, Twint

System Tools: PTHREADS, NACHOS

Data Mining Tools: SPSS Modeler (Clementine)

Hardware Tools: XILINX ISE, AVR STUDIO, CODE VISION AVR, LOGISIM

Presentation Tools: MS Office, Mac Presentation Tools, LATEX, Adobe Photoshop

#### ACADEMIC PROJECTS

- B.Sc thesis topic Supervisors: Dr. Nasser Mozayani & Dr. Sauleh Eetemadi
  - -Image Captioning using Attention mechanism on translated MSCoCo Dataset, using Tensorflow on Google Colaboratory (working with another B.Sc student
- Machine Learning Lab

Supervisor: Dr. Nasser Mozayani

- -Reducing the convergence time for Deep Q-Learning algorithms with Transfer Learning for ATARI games, using Autoencoder and Variational Autoencoder as State Representation (working in a group of 4 people)
- Data Mining Lab

Supervisor: Dr. Hossein Rahmani

- -Implementing Hashtag Recommender for Twitter, which is still on-going, using Twint and Python (working with a M.S student)
- -Gathering Dataset for Persian language Word Association Norms and analyzing it and publishing the Dataset (working in a group of 4 people)
- -Fraud Detection for German Bank Dataset using SPSS MODELER
- Computational Intelligence Course Instructor : Dr. Nasser Mozayani
  - -Solving Inverted Pendulum problem with Fuzzy Logic and Reinforcement Learning (Q-Learning)
  - -Image Recognition with Multi Layer Perceptron for MNIST database using Numpy, Keras
  - -Function approximation with MLP (Multi Layer Perceptron) and RBF (Radial Basis Function)
  - -Genetic Algorithm for N-Queen problem

- Natural Language Processing Course
- Instructor: Dr. Sauleh Eetemadi
- -Machine Translation for Poetry to Prose and vice versa using OpenNMT
- -Sentiment Analysis (for tweets that have #worldcup) using AFINN
- -Naive Bayes and Maximum Entropy classifiers for speeches of two famous persian politicians
- Artificial Intelligence & Expert Systems Course Minaei-Bidgoli
- Instructor : Dr. Behrouz
- -Face Recognition for LFW (Labeled Face in the Wild) dataset using OPENCV
- Advanced Computer Programming Course Instructor : Dr. Adel Torkaman Rahmani
  - -Prototype of Social Network Website with comment, like, and post abilities
  - -Web Scraper and Search Engine using SCRAPY
  - -File Manager with python

### **CERTIFICATES & ONLINE COURSE**

• Reinforcement Learning Course

Summer 2016

Introducing and working with Reinforcement Learning models and taking projects (Learning ATARI games) at Iran University of Science & Technology

• Deep Learning Course

Fall 2018

Doing Three projects (Multi Layer Perceptron, Convolutional Networks, RNN) with TensorFlow and working on multi-GPU servers at Sharif University of Technology

• Sequence Models

Spring 2018

Instructed by Andrew Ng (deeplearning.ai) on coursera

## **SELECTED ACADEMIC COURSES**

Natural Language Processing	$A^+$	Computational Intelligence	A
Artificial Intelligence and Expert Systems	$A^+$	Discrete Mathematics	A
Analysis and Design of Algorithms	A	Signals & Systems	A
Operating Systems	$A^{+}$	Theory of Languages and Automata	A
Data Structure	A	Advanced Computer Programming	A

## LANGUAGE SKILLS

Persian mother tongue

English Toefl Overall Score: 106

GRE Quantitative: 168

# **REFERENCES**

Prof. Hossein Rahmani

Iran University of Science & Technology h\_rahmani@iust.ac.ir

Prof. Nasser Mozayani

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Prof. Ahmad Patooghy

University of Central Arkansas apatooghy@uca.edu

Prof. Ahmad Akbari

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Prof. Sauleh Eetemadi

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