Kiarash Aghakasiri

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PERSONAL DETAILS

Birth	July 16, 1997
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INTEREST

- Reinforcement Learning / Artificial Intelligence
- Machine Learning

EDUCATION

University of Alberta — Edmonton, Alberta, Canada

MSc. Computing Science — September 2019 - Expected July 2021

Being in the top 100 universities in the world

Iran University of Science and Technology — Tehran, Tehran, Iran

BSc. Computer Engineering concentration on AI — September 2015 - July 2019

Rank 3rd among Iran universities by QS Ranking

(GPA = 3.87)

Allameh-Helli (NODET) — Tehran, Tehran, Iran

MidSchool, HighSchool, PreUniversity — September 2008 - June 2015

National Organization for Development of Exceptional Talent

(Diploma GPA = 4)

PERSONAL ACHIEVEMENTS

- Succeeded to rank second top student in B.S. with GPA 17.78/20 = 3.87/4
- 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

University of Alberta Edmonton, Alberta, Canada

Intro to Foundations of Computing TA January 2020 - April 2020

Instructor : Dr. Martha White

University of Alberta Edmonton, Alberta, Canada

Basics of Machine Learning September 2019 - December 2019

Instructors : Dr. Geoff Hollis, Dr. Sadaf Ahmed, Dr. Joerg Sander

Iran University of Scinece and Technology Tehran, Tehran, Iran

Machine Learning Researcher June 2018 - July 2019

Transfer Learning for RL Agents / Image Captioning for Persian Language

Supervisor : Dr. Nasser Mozayani

Data Mining Researcher January 2016 - July 2019

Fraud Detection / Persian Word Association Norms / Dataset for Hashtag Recommendation

Supervisor : Dr. Hossein Rahmani

Computational Intelligence Tutor January 2019 - June 2019

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

Instructor : Dr. Nasser Mozayani

Natural Language Processing Tutor January 2019 - June 2019

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: PyTorch, 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

M.Sc Projects:

- Reinforcement Learning II **Instructor: Dr. Richard Sutton**

  -Investigating Sensitivity of Step Size and Performance in True online TD(λ) for Different Values of λ

- Intro to Machine Learning **Instructor: Dr. Martha White**

  -Applying Variance Reduction Methods to Policy Evaluation for Off-Policy Setting

- Deep Learning for NLP **Instructor: Dr. Lili Mou**

  -Named Entity Recognition performance on Out of Vocabulary words

B.Sc Projects:

- B.Sc Thesis **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**

  -Working with a M.S student, crawling twitter using Twint and Python, to gather a dataset for hashtag recommendation

  -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 **Instructor : Dr. Behrouz Minaei-Bidgoli**

  -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

Available upon request.