Alireza Torabian

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RESEARCH INTERESTS

Optimization

Adversarial Machine Learning

Machine Learning

· Deep Learning

EDUCATION

2015 - now

Bachelor of Computer (Software) Engineering, Amirkabir Univ. of Tech. (Tehran Polytechnic)

GPA: 3.91/4 (18.31/20) for 134/140 units until now

In the top 10% among 101 students

Thesis: Design and Implementation of an Automatic Question Answering System for Answering Simple Persian

Questions, Supervisor: Dr. Saeedeh Momtazi

2011 - 2015

Diploma in Physics and Mathematics Discipline, Allame Helli High School, Tehran

Affiliated with the National Organization for Development of Exceptional Talents (NODET)

GPA: 19.64/20

RESEARCH AND WORK EXPERIENCES

Jul 2019 - Sep 2019

Research intern on the subject of Adversarial Machine Learning at National University of

Singapore. Under the supervision of Dr. Reza Shokri

 $Creating\ a\ black-box\ adversarial\ attack\ to\ fool\ face\ detection\ and\ face\ recognition\ models\ to\ impersonate$

anyone.

Jul 2018 - Dec 2018

Research and Development intern in Developing Persian Question Answering System at

Diaaloa.

Developing a sequence-to-sequence model to generate answers according to the entrance questions.

| Diaalog Company Page

Oct 2016 - Sep 2017

Member of *S.O.S. vr* Team, **Research Assistant at Cognitive Robotics Laboratory**, Amirkabir University of Technology, Tehran, Iran. Under the supervision of Dr. Saeed Shiry Ghidary

Developing an autonomous exploration for robots.

| CR Laboratory Page

Sep 2016 - Jun 2017

Founder and Member of Dropout (F.K.A. Lost Soul), Android Game Developer Team

| Dropout CafeBazaar Page

TEACHING ASSISTANTSHIPS

Artificial Intelligence: Dr. Nickabadi

Data Structure and Algorithms: Dr. Bagheri

Principles of Computer and Programming: Dr. Shiry Ghidary

Artificial Intelligence: Dr. Nickabadi

Data Structure: Prof. Dehghan Takht Fooladi

Sep 2018 – Jan 2019

Feb 2018 – Jun 2018

Sep 2017 – Jan 2018

HONORS AND AWARDS

- **Second Place** in the Rescue Simulation Virtual Robot League as a member of SOSvr Team at **RoboCup Nagoya**, **Japan**, **2017** (scores certificate)
- Ranked **2nd** among all Software Engineering Students, Class of 2015, Amirkabir University of Technology, Tehran, Iran, **2016**
- Ranked top 0.5% among 180,000 participants in the Nationwide Iranian University Entrance Exam in Math and Physics, 2015

RELATED COURSES

Computer Science: Convex Optimization (graduate course), Linear Algebra, Foundations of Data Min-

ing, Artificial Intelligence, Signals and Systems, Design of Algorithms, Data Structures & Algorithms, Advanced Computer Programming, Principles of Computer &

Programming

Mathematics: Linear Algebra, Stochastic Processes, Game Theory (Topics in Mathematics & Its Ap-

plications), Engineering Mathematics, Engineering Statistics, Differential Equations,

Discrete Mathematics, Calculus II, Calculus I

COMPUTER SKILLS

Languages: C++, Java, Python, Go

Frameworks and Tools: Tensorflow (Python & JS), Numpy

Database Tools: MySQL, SPARQL, MongoDB

Web Programming: HTML, CSS, JavaScript, jQuery, Express.js, PHP

NOTABLE PROJECTS

• Optimization Course Homeworks, Line Search methods, Trust Region methods, Inequality constrained minimization, 2019

- Data Mining Course Homeworks, Non-linear Regression, KNN model, Decision Tree, A-Priori Algorithm, Linear SVM, SVM using Kernel, Feedforward Neural Network, 2019
- RNN Language Model, Character sequence prediction using RNN, 2018
- QA Clustering, Clustering the answers based on the sentences, 2018
- Classical Search and Local Search algorithms, AI Course Project, 2017

LANGUAGES

PERSIAN: Native ENGLISH: Fluent

REFERENCES

- Saeedeh Momtazi, Assistant Professor, Amirkabir University of Technology momtazi@aut.ac.ir
- Reza Shokri, Assistant Professor, National University of Singapore reza@comp.nus.edu.sg
- Ahmad Nickabadi, Assistant Professor, Amirkabir University of Technology nickabadi@aut.ac.ir

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