

Alireza TORABIAN

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RESEARCH INTERESTS

- Optimization
- Adversarial Machine Learning
- Machine Learning
- Deep Learning

EDUCATION

2015 - 2020	Bachelor of COMPUTER (Software) ENGINEERING, Amirkabir Univ. of Tech. (Tehran Polytechnic) GPA: 3.9/4 (18.25/20) 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. The attack model is tested with two face recognition tools (report).
Jul 2018 - Dec 2018	Research and Development intern in Developing Persian Question Answering System at Diaalog, Developing a sequence-to-sequence system to generate answers according to the entrance questions. Clustering methods and a sequence-to-sequence neural network are used in this project. 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	Sep 2018 – Jan 2019
Data Structure and Algorithms: Dr. Bagheri	Sep 2018 – Jan 2019
Principles of Computer and Programming: Dr. Shiry Ghidary	Sep 2018 – Jan 2019
Artificial Intelligence: Dr. Nickabadi	Feb 2018 – Jun 2018
Data Structure: Prof. Dehghan Takht Fooladi	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 (~40), 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 Mining, 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 Applications), 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

TOEFL iBT Score: 91 (Reading: 27, Listening: 23, Speaking: 21, Writing: 20)

GRE Score: Quantitative Reasoning: 166, Verbal Reasoning: 140, Analytical Writing: 3.0

REFERENCES

- [Saeedeh Momtazi](#), *My Thesis Supervisor, Assistant Professor, Amirkabir University of Technology*
montazi@aut.ac.ir
- [Reza Shokri](#), *My Internship Mentor, Assistant Professor, National University of Singapore*
reza@comp.nus.edu.sg
- [Ahmad Nickabadi](#), *My Teaching Supervisor, Assistant Professor, Amirkabir University of Technology*
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