

Alireza TORABIAN

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RESEARCH INTERESTS

- Uncertainty Quantification
- Adversarial Machine Learning
- Optimization
- Deep Learning

EDUCATION

2021 - 2022	M.Sc. in COMPUTER SCIENCE, York University Supervisor: Dr. Ruth Urner GPA: A
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 <i>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).</i>
Jul 2018 - Dec 2018	Research and Development intern in Developing Persian Question Answering System at Diaalog , <i>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.</i> 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 <i>Developing an autonomous exploration for robots.</i> 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

- [Ruth Urner](#), *My Master's Supervisor, Assistant Professor, York University*
ruth@eecs.yorku.ca
- [Saeedeh Momtazi](#), *My Bachelor Thesis Supervisor, Assistant Professor, Amirkabir University of Technology*
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- [Reza Shokri](#), *My Internship Mentor, Assistant Professor, National University of Singapore*
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