Alireza TORABIAN

in alireza-torabian

⌕ 1997alireza

✉ torabian.alireza@gmail.com
torabian@yorku.ca

🖹 1997alireza.github.io

RESEARCH INTERESTS

• Optimization • Adversarial Machine Learning • Machine Learning • Deep Learning

EDUCATION

2021 - 2022 | M.Sc. in COMPUTER SCIENCE, **York University**
Supervisor: Dr. Ruth Urner

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

- **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*
  momtazi@aut.ac.ir
- **Reza Shokri**, *My Internship Mentor, Assistant Professor, National University of Singapore*
  reza@comp.nus.edu.sg

Last update: Nov. 2021