

Alireza TORABIAN

in alireza-torabian

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RESEARCH INTERESTS

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

EDUCATION

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|-------------|---|
| 2015 - now | Bachelor of COMPUTER (Software) ENGINEERING, Amirkabir Univ. of Tech. (Tehran Polytechnic) <i>The Second Best Technical University in Iran</i> GPA: 3.91/4 (18.31/20) for 134/140 units until now <i>In the top 10% among 101 students</i> |
| 2011 - 2015 | Diploma in PHYSICS AND MATHEMATICS DISCIPLINE, Allame Helli High School, Tehran <i>Affiliated with the National Organization for Development of Exceptional Talents (NODET)</i> GPA: 19.64/20 |

RESEARCH AND WORK EXPERIENCES

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| 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.</i> |
| Jul 2018 - Dec 2018 | Research and Development intern in Developing Persian Question Answering System at <i>Diaalog</i> , <i>Developing a sequence-to-sequence model to generate answers according to the entrance questions.</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 <i>Dropout (F.K.A. Lost Soul)</i> , Android Game Developer Team Dropout CafeBazaar Page |

TEACHING ASSISTANTSHIPS

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|---|---------------------|
| 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 alongside 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

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|-------------------|--|
| 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

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| 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](#), 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
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