

Ali Mortazavi

CONTACT INFORMATION

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EDUCATION

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
B.Sc. Computer Software Engineering, 2013 – 2017
CGPA: **Overall** 18.47 / 20 (3.78/4) [Ranked 3rd]
Selected Course 19.33 / 20 (4/4)

RESEACH INTERESTS

- Statistical Machine Learning
- Optimization
- Sequential Prediction
- Mechanism Design in Game Theory

RESEARCH EXPERIENCE

Implementation and Evaluation of "Genetic" and "Simulated Annealing" Algorithms for Extended Travelling Salesman Problem, B.Sc. Thesis, [\[code\]](#) [\[report\]](#)

Under the supervision of Dr. Razazi at Amirkabir University of Technology

In this project, we tested the performance of two different heuristic approaches to solve an NP-Complete Problem. This problem is an extended version of the Travelling Salesman Problem. Since our approach is heuristic, there is no guaranty to find a global optimum answer. Therefore, we needed some other exact approach for computing the global optimum. For this purpose, we reduced our problem to an Integer Linear Programming Instance. So in small graph samples, we could compare our results with the optimum solution and for the large graph samples, we just compared our two different methods with each other.

HONORS AND AWARDS

- **Ranked 3rd** (out of 100) in term of CGP among student of computer engineering of 2013 Entrance 2017
- Awarded as Outstanding Student in Amirkabir University of Technology 2015-2017
- Awarded direct admission to M.Sc. program in **Artificial Intelligence** at *Amirkabir University of Technology* as talented undergraduate student 2017
- **Ranked 19th** in the Final Stage in **National Scientific Olympiad** of Computer Engineering 2016
- Qualified in the Selection Exam of **National Scientific Olympiad** of Computer Engineering 2016
Qualified as 9th among the students in all the Universities in the Tehran Region
- **Ranked 1st** in **Mathematics Team Selection Exam** 2015
- **Ranked Top 0.8%** In The Country-wide University Entrance Exam 2013

ACADEMIC PROJECTS

Image Denoising and Segmentation Using Markov Random Field [\[code\]](#)[\[report\]](#)
Optimizing Energy Function using Simulated Annealing, Comparing different Color Spaces results.
Text Summarization [\[code\]](#)[\[report\]](#)
Extracting important sentence as a summary using page rank algorithm and word2vec.
Text Classification [\[code\]](#)[\[report\]](#)
Using different metrics (mutual information, information gain, etc.) for extracting important words for document classification task.

TEACHING EXPERIENCE	• Probability and Statistics , Teaching Assistant Under Supervision of Prof. Amirhaeri (haeri@aut.ac.ir)	spring 2018		
	• Special Class for Olympiad Preparation , Instructor Intro. To Theory of Computation, Algorithm Design	spring 2017 and 2018		
	• Algorithm Design , Teaching Assistant Under Supervision of Prof. Rahmati (zrahmati@aut.ac.ir)	spring 2017		
	• Algorithm Design , Teaching Assistant Under Supervision of Prof. Mousavi (srm@aut.ac.ir)	spring 2016		
HIGHLIGHTED COURSES	• Probability and Statistics	20/20	• Data Structures	20/20
	• Statistical Machine Learning	20/20	• Algorithm Design	20/20
	• Probabilistic Graphical Models	17/20	• Advanced Topics in Algorithm Design	20/20
	• Stochastic Processes	20/20	• Theory of Computation	20/20
	• Data Mining	19/20	• Artificial Intelligence	20/20
	• Data Storage and Retrieval	20/20		
ATTENDED CONFERENCES AND SEMINARS	• Deep Learning Summer School at University of Tehran An introduction to Deep Learning and different research Areas.	August 2018		
	• Block Chain and Cryptocurrency An introduction to Block Chain Mechanism and different Cryptocurrency systems. By Dr. Hatami and Dr. Salavati	February 2018		
	• Workshop on Game Theory An introduction by Dr. Salavati to Game Theory Concepts (Nash Equilibrium, Expected Pay off, Repeated Games, Auctions, etc.)	February 2017		
SKILLS	• Theoretical Skills Mathematics, Probability and Statistics, Algorithms			
	• Technical Skills Python (NumPy, Scikit, NLTK), Java, C/C++			
TALKS	• A brief summary to The Theory of Computation	May 2018		
	• What is Natural Language Processing	May 2017		
	• Can computers have feelings?	June 2016		
LANGUAGES	• Persian : Native			
	• English : TOEFL: 99 (Reading: 23, Listening: 28, Speaking: 23, Writing: 25) GRE General: 317 (Quantitative: 167, Verbal: 150)			
OTHER ACTIVITIES	• Piano Recently I have started to learn piano.	2018		
	• Amirkabir Programming League Staff I was member of problem setting team.	2016		
	• Basketball Member of Basketball team in Computer Engineering Department.	2015		