

# POUYA AGHAHOSEINI

Curriculum vitae last updated on December 29, 2019  
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## RESEARCH INTERESTS

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- Natural Language Processing
- Machine Learning
- Computer Vision
- Reinforcement Learning
- Social Media Computing
- Information Retrieval

## EDUCATION

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**Bachelor of Science in Computer Science** 2016-2020(Expected)  
Amirkabir University of Technology(Tehran Polytechnic), Tehran, Iran  
CGPA: 3.6/4 (17.28/20)  
Last Two Years GPA(68 Credits): 3.9/4 (18.37/20)      Selected Courses <sup>1</sup>  
**Diploma in Mathematics and Physics** 2012-2016  
Allameh Helli High School, Tehran , Iran (NODET)  
GPA: 18.5/20

## TEST SCORES

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- TOEFL: 103 (R:28 L:27 S:27 W:21)
- GRE: 321 (V:158 Q:163 AWA:3.5)

## RESEARCH EXPERIENCE

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**Short Text Similarity: A Survey** Nov 2019  
*Literature Review*

- A Comprehensive Survey on works done in the area of Short Text Similarity from 2004 to 2019

## TEACHING EXPERIENCE

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**Head TA, Fundamentals of Programming: C Language** Present  
*Instructor: Dr.Farzaneh Salari*

- Holding Weekly Workshops
- Holding Office Hours
- Designing and Evaluating Assignments

**TA, Compilers** Present  
*Instructor: Dr.Mohammad Hassan Shirali-Shahreza*

- Exam Preperation Classes and Assignment Evaluation

**TA, Data Structures and Algorithms** Feb 2019 - Jun 2019  
*Instructor: Dr.Mohammad Akbari*

- Held weekly classes and office hours.
- Designed and Evaluated assignment and projects.

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<sup>1</sup>Introduction to Probability, Probability 1:A<sup>+</sup> ; Foundation of Matrix and Linear Algebra:A ; Foundation of Numerical Analysis:A<sup>+</sup> ; Data Structures and Algorithms:A<sup>+</sup> ; Database:A ; Software Design:A ; Design and Analysis of Algorithm:A<sup>+</sup>

## Head TA, Introduction to the Theory of Computation

Sep 2018 - Jan 2019

*Instructor: Dr.Fatemeh Zare-Mirakabad*

- Held weekly classes
- Supervised monthly workshops
- Designed and Evaluated assignment

## EXTRACURRICULAR EXPERIENCE

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### Winter School Organizing Committee Member

Mar 2019

*11th Winter School on Computational Geometry*

- The Winter School on Computational Geometry is held every year by Math and Computer Science Faculty, in collaboration with IPM Institute for Research in Fundamental Sciences.
- Notable researchers in computational geometry are invited for seminars and workshops in this program.

### Student Scientific Chapter Membership

Mar 2018 - Mar 2019

*Head Of Informatics and Competitions*

- Organized Data Science Seminars And Workshops.
- Coordinated 5 ACM Contests.
- Arranged On-Site Visits To Leading Tech Companies In Tehran.
- Arranged Talks With Alumni Currently Studying Or Working Abroad.
- Held 2018 New Student Orientation Program.
- Organized And Instructed Exam Preparation Classes(Calculus, Programming, Differential Equations).

## PROJECTS

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### Factory Simulation with MATLAB

Sep 2018 - Jan 2019

*Simulation Project*

- System modeling and simulation with MATLAB
- Simulation of a factory with different performances and various response time of each agent.

### Medify: An Application for Fixing Tags And Organizing Media Files

Jan 2018 - July 2018

*Software Engineering Course Project*

- The application was Developed using Scrum Methodology for Agile Software Development.
- The coursework required 5 presentations throughout the semester which included a 5-minute startup pitch presentation and the presentation of the first MVP(Minimum Viable Product).

### Designing and Creating A Database From YAGO Datasets

Jan 2018 - July 2018

*Database Course Project*

- Data Extraction using TSV files acquired from max plank institute website.
- Processing and Clustering TSV files with Python and MySQL.
- Designing and Creating A 3NF Database.

### SESSET: A Space Efficient Skiplist Data Structure

Sep 2017 - January 2018

*Data Structures Course Project*

- SSET was implemented with skiplist data structure.
- Each node consisted a BDeque which resulted in more efficient operations.
- All operations are done in  $O(\log n)^E + O(\sqrt{n})$  time.

## Range-Tree: A 2-D version of Range-Tree Data Structure

Sep 2017 - January 2018

*Data Structures Course Project*

- An Efficient Data Structure for geometrical queries.

## HONORS AND AWARDS

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### Top 10% in Graduating Class

Present

*Math and Computer Science Faculty*

- Class of 70 students

### Ranked 1<sup>st</sup> GPA at Fall-2018 and Spring-2019 Semesters

Sep 2018 - Jun 2019

*Math and Computer Science Faculty*

- Class of 70 Students

### Qualified for the final round of Amirkabir ACM-ICPC Competition

Nov 2018

*Computer Engineering Faculty*

- The ACM-ICPC Contest is held every year at Amirkabir University of Technology. Teams from all universities across the country take part in this competition.
- Candidates for representing the university in Asia Region contest are primarily filtered here.

### Ranked Within the Top 0.7% (1,169 among 162,879 students) in Iranian University Entrance Exam

Jul 2016

*Tehran, Iran*

- The competition is intense since it is the only means to gain admission to universities.

### Accepted in NODET (National Organization for Development of Exceptional Talents) High School Entrance Exam

Jul 2012

*Tehran, Iran*

- NODET student selection exam is held every year nationwide for students starting high school. The organization is responsible for a number of schools across the country, which train students on a more advanced level in each field of study.

## SKILLS

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<b>Programming Languages</b>	C/C++, Python, R, MATLAB
<b>Web Technologies</b>	HTML, CSS, Javascript, MySQL
<b>Libraries</b>	numPy, Pandas
<b>Operating Systems</b>	Linux, Windows
<b>Languages</b>	Persian, English
<b>Miscellaneous</b>	L <sup>A</sup> T <sub>E</sub> X, Jupyter, Microsoft Office, GAMS, Database Design

## REFERENCES

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- **Mohammad Akbari**  
Assistant Professor at Amirkabir University of Technology akbari.ma@aut.ac.ir
- **Fatemeh Zare-Mirakabad**  
Assistant Professor / Head of CS Group at Amirkabir University of Technology f.zare@aut.ac.ir
- **Amin Gheibi**  
Assistant Professor at Amirkabir University of Technology amin.gheibi@aut.ac.ir