

# POUYA AGHAHOSEINI

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## EDUCATION

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### **Bachelor of Science in Computer Science** 2016-2020(Expected)

Amirkabir University of Technology, Tehran, Iran  
Cumulative GPA: 3.6/4 (17.28/20)  
Last Two Years GPA(68 Credits): 3.9/4 (18.37/20)  
Last Year GPA(32 Credits) : 4/4 (19.55/20)  
Member of Student Scientific Chapter (Head of Informatics)

### **Diploma in Physics and Mathematics Discipline** 2012-2016

Allameh Helli High School, Tehran , Iran  
National Organization for Development of Exceptional Talents (NODET)  
Two Science Seminar Projects (Physics and Mechanics Fields)  
GPA: 18.5/20

## EXPERIENCE

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### **Teaching Assistantship, Fundamentals of Programming: C Language** Starting Sep 2019

*Instructor: Dr.Fatemeh Zare-Mirakabad* *Amirkabir University of Technology*

- Weekly Classes and Assignment Design is expected.

### **Teaching Assistantship, Compilers** Starting Sep 2019

*Instructor: Dr.Mohammad Hassan Shirali-Shahreza* *Amirkabir University of Technology*

- Weekly Classes and Assignment Evaluation is expected.

### **Teaching Assistantship, Data Structures and Algorithms** Feb 2019 - Jun 2019

*Instructor: Dr.Mohammad Akbari* *Amirkabir University of Technology*

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

### **Winter School Organizing Committee Member** Mar 2019

*11th Winter School on Computational Geometry* *Amirkabir University of Technology*

- 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.

### **Lead Teaching Assistantship, Introduction to the Theory of Computation** Sep 2018 - Jan 2019

*Instructor: Dr.Fatemeh Zare-Mirakabad* *Amirkabir University of Technology*

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

### **Student Scientific Chapter Membership** Mar 2018 - Mar 2019

*Head Of Informatics and Competitions* *Amirkabir University of Technology*

- 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.
- Arranged Exam Preparation Classes(Calculus,Programming,Differential Equation).

## PROJECTS

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### **Factory Simulation with MATLAB**

Sep 2018 - Jan 2019

*Simulation Project*

*Amirkabir University of Technology - Industrial Engineering Faculty*

- System modeling and simulation with MATLAB
- Simulation of a factory with 4 lines of work 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*

*Amirkabir University of Technology*

- The application's development was under the supervision of Dr.Amin Gheibi and 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).
- Weekly feedback Sessions.
- Scrum master role changed every two weeks.

### **Designing and Creating A Database From YAGO Datasets**

Jan 2018 - July 2018

*Database Course Project*

*Amirkabir University of Technology*

- 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*

*Amirkabir University of Technology*

- 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*

*Amirkabir University of Technology*

- The Tree is primarily built with the input points.
- Queries are asked in the form of rectangle coordinates.
- The implementation was in C++ language.

## HONORS AND AWARDS

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### **Top 10% in Programme**

Present

*Math and Computer Science Faculty*

*Amirkabir University of Technology*

- 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*

*Amirkabir University of Technology*

- Class of 70 Students

### **One of the Top Teams at Amirkabir ACM-ICPC Competition**

Nov 2018

*Computer Engineering Faculty*

*Amirkabir University of Technology*

- 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>TOEFL</b>                 | To be taken September 21  |
| <b>GRE</b>                   | To be taken October 5   |
| <b>Miscellaneous</b>         | L <sup>A</sup> T <sub>E</sub> X, Microsoft Office, GAMS, Adobe Premiere, Adobe Photoshop(Basic) |

## **RESEARCH INTERESTS**

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- Natural Language Processing
- Machine Learning
- Deep Learning
- Data Science
- Artificial Intelligence