# POUYA AGHAHOSEINI

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#### **EDUCATION**

#### 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**

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

Head Of Informatics and Competitions

Mar 2018 - Mar 2019 Amirkabir University of Technology

- · Organized Data Science Seminars And Workshops.
- $\cdot$  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**

## 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

## Top 10% in Programme

Present

Math and Comptuer Science Faculty

Amirkabir University of Technology

· Class of 70 students

Ranked  $1^{st}$  GPA at Fall-2018 and Spring-2019 Semesters

Sep 2018 - Jun 2019

Math and Comptuer 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**

Programming Languages C/C++, Python, R, MATLAB
Web Technologies HTML, CSS, Javascript, MySQL

LibrariesnumPy, PandasOperating SystemsLinux, WindowsLanguagesPersian, English

Test Scores TOEFL(tbt Sep 21), GRE(tbt Oct 5)

Miscellaneous LATEX, Jupyter, Microsoft Office, GAMS, Database Design

#### RESEARCH INTERESTS

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