# POUYA AGHAHOSEINI

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#### RESEARCH INTERESTS

- Machine Learning Natural Language Processing Computer Vision Data Science
- Social Media Computing

#### **EDUCATION**

#### Bachelor of Science in Computer Science

2016-2020(Expected)

Amirkabir University of Technology, Tehran, Iran

CGPA: 3.6/4 (17.28/20)

Last Two Years GPA(68 Credits): 3.9/4 (18.37/20)

### Diploma in Physics and Mathematics Discipline

2012-2016

Allameh Helli High School, Tehran, Iran (NODET)

GPA: 18.5/20

#### TEST SCORES

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

#### **EXPERIENCE**

#### Head TA, Fundamentals of Programming: C Language

Present

Instructor: Dr. Farzaneh Saalaari

- · Holding Weekly Workshops
- · 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.

#### 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.

#### 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

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

#### **PROJECTS**

#### Factory Simulation with MATLAB

Sep 2018 - Jan 2019

Simulation Project

- · 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

- · 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).

# 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
- · The Tree is primarily built with the input points.
- · Queries are asked in the form of rectangle coordinates.

#### HONORS AND AWARDS

· Class of 70 students

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

Sep 2018 - Jun 2019

Math and Comptuer Science Faculty

· Class of 70 Students

### One of the Top Teams at 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**

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

LibrariesnumPy, PandasOperating SystemsLinux, WindowsLanguagesPersian, English

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