## POUYA AGHAHOSEINI

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#### RESEARCH INTERESTS

• Machine Learning

• Natural Language Processing

• Reinforcement Learning

• Computer Vision

• Social Media Computing

• Data Science

#### **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)

Selected Courses <sup>1</sup>

#### 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)

#### RESEARCH EXPERIENCE

#### Short Text Similarity: A Survey

Nov 2019

A Brief Research Experience

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

#### TEACHING EXPERIENCE

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

Present

Present

Instructor: Dr. Farzaneh Salari

- · Holding Weekly Workshops
- · Designing and Evaluating Assignments

TA, Compilers

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.

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

#### 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

#### 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**

#### 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 Database Course Project

Jan 2018 - July 2018

- · 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

Data Structures Course Project

· An Efficient Data Structure for geometrical queries.

#### HONORS AND AWARDS

#### Top 10% in Graduating Class

Present

Math and Comptuer Science Faculty

· Class of 70 students

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

Sep 2018 - Jun 2019

Sep 2017 - January 2018

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

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 IATEX, Jupyter, Microsoft Office, GAMS, Database Design