

POUYA AGHAHOSEINI

Curriculum vitae last updated on February 4, 2021

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RESEARCH INTERESTS

- Human-Computer Interaction
- Machine Learning
- Natural Language Processing
- Computer Vision
- Reinforcement Learning
- Social Media Computing

EDUCATION

Master of Science in Computer Science *2021-2022(Expected)*

Bachelor of Science in Computer Science *2016-2020*

Amirkabir University of Technology(Tehran Polytechnic), Tehran, Iran

CGPA: 3.6/4 (17.16/20)

Last Two Years GPA(68 Credits): 3.76/4 (18.45/20) Selected Courses ¹

Diploma in Mathematics and Physics *2012-2016*

Allameh Helli High School, Tehran , Iran (NODET)

GPA: 18.5/20

RESEARCH EXPERIENCE

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

TA, Design and Analysis of Algorithms Feb 2020 - Aug 2020

Instructor: Dr.MohammadReza Kazemi

- Holding Classes
- Designing and Evaluating Assignments

Head TA, Fundamentals of Programming: C Language Sep 2019 - Jan 2020

Instructor: Dr.Farzaneh Salari

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

TA, Compilers Sep 2019 - Jan 2020

Instructor: Dr.Mohammad Hassan Shirali-Shahreza

- Exam Preparation Classes and Assignment Evaluation

TA, Data Structures and Algorithms Feb 2019 - Jun 2019

Instructor: Dr.Mohammad Akbari

¹Introduction 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⁺

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

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

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 *Data Structures Course Project*

Sep 2017 - January 2018

- An Efficient Data Structure for geometrical queries.

HONORS AND AWARDS

IGSES

Jan 2021

University of Manitoba

- International Graduate Student Entrance Scholarship

Top 10% in Graduating Class

Aug 2020

Math and Computer Science Faculty

- Class of 70 students

Ranked 1st 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

Programming Languages

C/C++, Python, R, MATLAB

Web Technologies

HTML, CSS, Javascript, MySQL

Libraries

numPy, Pandas

Operating Systems

Linux, Windows

Languages

Persian, English

Miscellaneous

L^AT_EX, Jupyter, Microsoft Office, GAMS, Database Design

REFERENCES

- **Andrea Bunt**

Professor at the University of Manitoba

bunt at cs.umanitoba.ca

- **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