

Mehrshad Taziki

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Homepage: <https://mehrshad-taziki.github.io>

Education

Sep 2020 **Bachelor of Computer Science**, *Sharif University of Technology*, Tehran, Iran.
Present GPA : 19.90/20 (Rank 1st in Computer Science Programme)

Sep 2014 **High School Diploma in Mathematics and Physics**, *National Organization for Development of Exceptional Talents (Sampad)*, Gorgan, Iran.

Research Interests

- Combinatorial Optimization
- Algorithmic Graph Theory
- Approximation Algorithms
- Theory of Computation

Research Experiences

Jul 2023 **Summer Research Program.**

Present Working with Prof. Amin Aminzadeh Gohari about the relative fractional independence number and its applications to approximate the zero error capacity of graphs.
The Institute of Theoretical Computer Science and Communications, Chinese University of Hong Kong

Jun 2023 **Research Project for Combinatorial Optimization Course.**

Jul 2023 We explored various algorithms to solve this problem, including Goldbergs Algorithms, Charikars LP, Greedy Peeling algorithm, and the recently introduced Iterative Greedy Peeling algorithm. We implemented these algorithms efficiently and conducted a computational study on each of them.
You can find the results in [here](#) or on my homepage.

Teaching Experiences

Fall 2023 **Teaching Assistant**, *Data Structures and Algorithms*, Prof. Shahram Khazaei.

Fall 2023 **Teaching Assistant**, *Theory of Languages and Automata*, Prof. Amir Daneshgar.

Spring 2023 **Teaching Assistant**, *Foundation of Mathematics*, Prof. Mohammad Ardeshtir.

Spring 2023 **Teaching Assistant**, *Mathematical Logics*, Dr. Mohsen Shahriari.

Spring 2023 **Teaching Assistant**, *Game Theory*, Dr. Marzieh Nilipour.

Fall 2022 **Head Teaching Assistant**, *Basic Programming*, Prof. Mojtaba Tefagh.

Fall 2022 **Teaching Assistant**, *Data Structures and Algorithms*, Prof. Alireza Zarei.

Fall 2022 **Teaching Assistant**, *Theory of Languages and Automata*, Prof. Ali Movaghar.

Fall 2022 **Teaching Assistant**, *Linear Algebra*, Prof. Hamid R Rabiee .

Fall 2022 **Teaching Assistant**, *Probability and Statistics*, Prof. Ali Sharifi-Zarchi.

Spring 2022 **Teaching Assistant**, *Linear Algebra*, Dr. Mohsen Djamali.

Spring 2022 **Teaching Assistant**, *Introduction to Mathematics*, Prof. Mir Omid Haji Mirsadeghi.

Work Experiences

National Math Olympiad.

Grading National Math Olympiad Papers, Tehran, Iran

Olympiad in Informatics Teacher.

Teached Combinatorics, Graph Theory, and, Algorithm Design in National Organization for Development of Exceptional Talents (Sampad), Gorgan, Iran

Relevant Courses

- Fall 2023 **Advanced Algorithms** Ongoing
- Fall 2023 **Approximation Algorithms** Ongoing
- Fall 2023 **Operational Research** Ongoing
- Spring 2023 **Combinatorial Optimization** 20/20
- Spring 2023 **Theory of Computation** 20/20
- Spring 2023 **Analysis of Algorithms** 20/20
- Fall 2022 **Artificial Intelligence** 20/20
- Fall 2022 **Game Theory** 20/20
- Spring 2022 **Mathematical Logics** 20/20
- Spring 2022 **Theory of Language and Automata** 20/20
- Spring 2022 **Graph Theory and Applications** 20/20
- Spring 2022 **Probability and Applications** 20/20
- Fall 2021 **Linear Algebra** 20/20
- Fall 2021 **Data Structures** 20/20
- Spring 2021 **Foundation of Mathematics** 20/20
- Online **Machine Learning**

Voluntary Work

University Mentor for New Students, Sharif University of Technology.

Provided guidance and support to new students during their transition to university life.

Environmental Enthusiasts Scientific Association, Sharif University of Technology.

Participated in environmental awareness campaigns and events on campus.

Programming Languages

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|------------------------|--------------------------------|
| ● Java Advanced | ● Python Advanced |
| ● C++ Advanced | ● \LaTeX Intermediate |

Languages

- | | |
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| ● Persian Mothertongue | ● English Fluent |
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