Mehrshad Taziki

Department of Mathematical Sciences,
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Education

Sep 2020 Present	**Bachelor of Computer Science**, *Sharif University of Technology*, Tehran, Iran. GPA : 19.90/20 (Rank 1st in Computer Science Programme)
Sep 2014 Sep 2020	**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 Present	**Summer Research Program**. Working with Prof. Amin Aminzadeh Gohari on the concept of relative fractional independence number of a graph and it's applications, The Institute of Theoretical Computer Science and Communications, Chinese University of Hong Kong
Jun 2023 Jul 2023	**Research Project for Combinatorial Optimization Course**. Me and my teammate did a project about the densest subgraph problem. We implemented the famous algorithms for this problem efficiently and created a dataset for this problem. lastly we did a computational study over this algorithms on this dataset. You can find the algorithms and test results in this github page.
Jul 2022 Sep 2022	**Machine Learning Research Internship**. Institute for Research in Fundamental Sciences (IPM), Tehran, Iran

Teaching Experiences

Spring 2023	**Teaching Assistant**, *Foundation of Mathematics*, Prof. Mohammad Ardeshir.
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 and Graph Theory in National Organization for Development of Exceptional Talents (Sampad) for Iran Informatics Olympiad, Gorgan, Iran

Relevant Courses

- 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 **Theory of Computation**
- Online **Game Theory**
- Online **Analysis of Algorithms**
- Online **Machine Learning**

Programming Languages

- Java **Advanced**
- C++ **Advanced**
- Python **Advanced**
- LaTeX **Intermediate**

Languages

- Persian **Mothertongue**
- English **Fluent**