

# Mohamad Latifian

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- RESEARCH INTERESTS
- ◇ Computational Social Choice
  - ◇ Fair Division
  - ◇ Algorithmic Game Theory

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- EDUCATION
- ◇ **Ph.D. student in Computer Science:** 2020 – present  
University of Toronto, Toronto, Canada.
  - ◇ **M.Sc. student in Algorithms and Computation:** 2017 – 2019  
Sharif University of Technology, Tehran, Iran.  
**GPA:** 19.59/20.00  
**Thesis Title:** Considering the Effect of Abstention in the Distortion Value  
**Courses:** Computational Geometry: 20, Massive Data Algorithms: 20, Advanced Algorithms: 20, Social and Economic Networks: 20, Approximation Algorithms: 20, Data Mining: 16.9
  - ◇ **B.Sc. student in Computer Engineering:** 2012 – 2017  
Sharif University of Technology, Tehran, Iran.  
**GPA:** 17.22/20.00  
**Project Title:** Hamiltonian Path in Solid Grid Graphs  
**Related Courses:** Data Structures: 19.6, Design of Algorithms: 19.8, Theory of Languages and Automata: 20, Theory of Computation: 20, Algorithmic Game Theory: 17.7, Artificial Intelligence: 20, Theory of Computational Learning: 16.5
  - ◇ **Diploma in Mathematics and Physics Discipline:** 2007 – 2012  
Shahid Ejeii High School, affiliated with National Organization for Development of Exceptional Talents (NODET).

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- PUBLICATIONS
- ◇ **Almost Envy-freeness, Envy-rank, and Nash Social Welfare Matchings**  
Alireza Farhadi, Mohammadtaghi Hajiaghayi, Mohamad Latifian, Masoud Seddighin and Hadi Yami.  
Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI '21)
  - ◇ **Resource-Aware Protocols for Network Cost-Sharing Games**  
George Christodoulou, Vasilis Gkatzelis, Mohamad Latifian and Alkmini Sgouritsa.  
The Twenty-First ACM Conference on Economics and Computation (EC '20)
  - ◇ **On the Distortion Value of the Elections with Abstention**  
Mohammad Ghodsi, Mohamad Latifian, Masoud Seddighin.  
Thirty-Third AAAI Conference on Artificial Intelligence (AAAI '19)
  - ◇ **Rent Division Among Groups**  
Mohammad Ghodsi, Mohamad Latifian, Arman Mohammadi, Sadra Moradian, Masoud Seddighin.  
The 12th Annual International Conference on Combinatorial Optimization and Applications (COCOA '18)

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- RESEARCH EXPERIENCE
- ◇ **Research Intern,** Max Planck Institute for Informatics (May-June 2019)  
Work Title: **Resource-Aware Protocols for Network Cost-Sharing Games**  
George Christodoulou, Vasilis Gkatzelis, Mohamad Latifian and Alkmini Sgouritsa (Appeared in EC '20)

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- HONORS AND AWARDS
- ◇ **Silver Medal** In 21<sup>st</sup> Iranian National Olympiad in Informatics (2011).
  - ◇ Ranked **2<sup>nd</sup>** and **7<sup>th</sup>** in Nationwide Graduate Entrance Exam in Algorithms and Computation and Artificial Intelligence respectively (2017).  
Admission to **Sharif University of Technology** M.Sc. program.
  - ◇ Ranked **1<sup>st</sup>** in cumulative GPA among 97 M.Sc. students of the department, **2017 beginners, Sharif University of Technology**.
  - ◇ Ranked **147<sup>th</sup>** out of 300,000 competitors in the national university entrance exam (2012).  
Admission to **Sharif University of Technology** B.Sc. program.
  - ◇ Member of **The National Organization for Development of Exceptional Talents (NODET)** (2005 – 2011).
  - ◇ Scholarship from National Elites Foundation (2012 – Present).

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- TEACHING EXPERIENCE
- ◇ **Teaching Assistant**  
In Sharif University of Technology; for the following courses:
    - **Design and Analysis of Algorithms**: Hamid Zarrabi-Zadeh, Fall 2018 (Head TA), Fall 2016 (Head TA), Fall 2014,
    - **Algorithmic Game Theory**: Masoud Seddighin, Fall 2017, Spring 2019 (Head TA)
    - **Theory of Languages and Automata**: Ali Movaghar, Fall 2015, Spring 2016, Fall 2014, Spring 2015.
    - **Design and Analysis of Algorithms**: Mohammad Ali Abam, Fall 2014
    - **Data Structures and Algorithms**: Masoud Seddighin, Spring 2015
  - ◇ **Member of 4<sup>th</sup> Sharif National Students Competition scientific committee**, Sharif University of Technology (Fall 2016)
  - ◇ **Head of 13<sup>th</sup> & 14<sup>th</sup> Mehregan Mathematic Workshop scientific committee**, Shahid Ejeii High School (Aug. 2013 and 2014)
  - ◇ **Teaching Special Topics in Mathematics** (2011 – 2013)  
Teaching high-school students who were preparing for Olympiad in Informatics. Topics included Algorithms, Graph Theory, Problem Solving Strategies, and Programming.

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- SKILLS
- ◇ Programming:
    - Proficient in Java, C++ and Python
    - Familiar with Prolog, Verilog HDL, Bash and Matlab
  - ◇ Web/DB Technologies:
    - Familiar with HTML, CSS, JS, AngularJS, PostgreSQL and Django
  - ◇ Operating Systems:
    - MacOS and Linux
  - ◇ Languages:
    - Persian (native), English (fluent)
  - ◇ Tools:
    - Pages, L<sup>A</sup>T<sub>E</sub>X, Eclipse, PyCharm, iMovie

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- ACTIVITIES
- ◇ **Elected Member & President** of the Computer Engineering Dept. **Student Scientific Chapter (SSC)** (2014)  
SSC is the student committee concerned with directing the department extra-curriculum activities.

- ◇ **Chief of Staff** 16th, 17th & 18th ICPC Asia Region-Tehran Site (2014 – 2016)
- ◇ **Chief of Staff** 6th and 7th AI Challenge (2014, 2015)  
Competition for writing AI code in Java, C++ or Python, to pass the game field and overcome other AIs.