

Hamed Saleh

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Research Interests

- Distributed/Parallel Computing
- Fine-grained Complexity
- Graph Algorithms
- Mechanism Design and Fairness in Economic Environments

Education

University of Maryland, College Park, MD. GPA: 4/4 2018 - present
Department of Computer Science
Ph.D. in Computer Science, under supervision of [Prof. Hajiaghayi](#)

Sharif University of Technology, Tehran, Iran. GPA: 16.57/20 2012 - 2017
Department of Computer Engineering
B.Sc. in Computer Engineering

Publications

Streaming and Massively Parallel Algorithms for Edge Coloring in Congested clique and MPC models ESA'19
Soheil Behnezhad, Mahsa Derakhshan, MohammadTaghi Hajiaghayi, Marina Knittel, Hamed Saleh

Externalities and Fairness WWW'19
Mohammad Ghodsi, Hamed Saleh, Massoud Seddighin
Preprint available at [arXiv:1805.06191](#)

Working Papers

Computational Analyses of the Electoral College: Campaigning is Hard But Approximately Manageable submitted
Sina Dehghani, Hamed Saleh, Saeed Seddighin, Shang-Hua Teng

Massively Parallel Algorithms for String Matching with Wildcards submitted
MohammadTaghi HajiAghayi, Hamed Saleh, Saeed Seddighin, Xiaorui Sun
Preprint available at [arXiv:1910.11829](#)

Knapsack Can be Solved in Constant MPC Rounds. What about Connectivity? in-progress
Hamed Saleh, Saeed Seddighin

Honors and Awards

ACM-ICPC, International Collegiate Programming Contest by ACM.

- **15th Team** in [the 39th ACM-ICPC World Finals](#). 2015
Marrakech, Morocco
- **27th Team** in [the 37th ACM-ICPC World Finals](#). 2013
St. Petersburg, Russia
- **1st, 2nd, 1st Team** in Regional Contests of ACM-ICPC West Asia Region, Tehran Site, respectively in [2012](#), [2013](#) and [2014](#).

	Awarded University of Maryland Dean's fellowship . University of Maryland, College Park, MD	2018 - 2019
	Gold Medal in the 20 th Iranian National Olympiad in Informatics .	2010
	Awarded as Outstanding Student by the university president. Sharif University of Technology , Tehran, Iran	2013
	Recipient of the Grant for Undergraduate Studies. from the Iran's National Elites Foundation, for outstanding academic success.	2012 - 2017
Work Experience	Professional Software Engineer <ul style="list-style-type: none"> • Software Engineer at Cafe Bazaar Co. 2016 - 2018 Member of the Search project of Cafe Bazaar, dealing with Information Retrieval and Natural Language Processing challenges. • Software Engineer at Lyan Co. 2015 Started an online marketing platform startup. • Android Developer Intern at Rahnema Co. 2013 Participant in Rahnema Co. Android Development Camp. Open Source Software Developer <ul style="list-style-type: none"> • tps with Kian Mirjalali 2017 A command line tool for preparing programming problems. • site-admin with Mohammad Amin Khashkhashi Moghadam 2017 A graphical interface for monitoring and managing nodes in a contest hall. ¹ • HelliJudge with Mahrud Sayrafi. 2011 A programming competition judge with focus on security. 	
Research Experience	Research Assistant at Algorithms Laboratory 2018 - present University of Maryland, College Park <i>Under supervision of Prof. M. HajiAghayi</i> Working on distributed algorithms for graph problems, and also fine grained algorithms especially combinatorial problems.	
	Visiting Graduate Student 2018 Simons Institute for Theory of Computing , Berkeley, CA <i>Foundations of Data Science program</i>	
	Undergraduate member of CE Algorithm Laboratory 2016 - 2017 Sharif University of Technology <i>Under supervision of Prof. M. Ghodsi</i> Working on the problem of fair allocation of indivisible goods	
Teaching Experience	Teaching Assistant 2018 - present University of Maryland, College Park <ul style="list-style-type: none"> • Introduction to Computer Systems, Fall 2018 • Introduction to Algorithms, Spring 2018, Spring 2019, and Fall 2019 Teaching Assistant 2014 - 2016 Sharif University of Technology	

¹tps and site-admin are part of [IOI 2017 tools](#) developed by the organizing team

- Compiler Design, Spring 2016
- Design and Analysis of Algorithms, Fall 2015 and Spring 2014
- Object Oriented Design, S. Foroughi, Fall 2015

Technical Skills

- **Operating Systems:** Mac, Linux, and Windows.
- **Typesetting:** L^AT_EX, Microsoft Office, and LibreOffice.
- **Programming Languages:** C/C++, Python, Go, Java, Bash, and MATLAB.
- **Web Technologies:** HTML5, CSS3, Django, node.js, and angularjs.
- **DevOps tools and other:** Docker, Kubernetes, CI tools, Spark, redis, MongoDB, Rabbitmq, Celery.

Other Activities **External reviewer** for computer science conferences. 2018 - present
COCOON'18, ISAAC'18, and WWW'20.

Member of **Scientific Committee** of Programming Competitions 2013 - 2017
Designing contests and authoring problems with algorithmic theme
 IOI 2017, ACM-ICPC Regional Contests, INOI, and [Sharif AI Challenge](#)

last modified on February, 2019