# Hamed Saleh

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Research
Interests

- Distributed/Parallel Computing
- Massively Parallel Computation
- Sublinear Space
- Streaming Algorithms

#### Education

# University of Maryland, College Park, MD. GPA: 3.97/4

2018 - present

Department of Computer Science

Ph.D. in Computer Science, under supervision of Prof. Hajiaghayi Thesis: Sublinear Algorithms for Processing Massive Datasets

Sharif University of Technology, Tehran, Iran. GPA: 16.57/20

2012 - 2017

Department of Computer Engineering

B.Sc. in Computer Engineering

#### **Publications**

# Computational Analyses of the Electoral College:

AAAI'21

Campaigning is Hard But Approximately Manageable Sina Dehghani, Hamed Saleh, Saeed Seddighin, Shang-Hua Teng

# Streaming and Massively Parallel Algorithms for Edge Coloring

ESA'19 DISC'19

Soheil Behnezhad, Mahsa Derakhshan, Mohammad Taghi Hajiaghayi

Marina Knittel. Hamed Saleh

## WWW'19

Externalities and Fairness
Mohammad Ghodsi, Hamed Saleh, Massoud Seddighin

## In Progress Papers

### Massively Parallel Constant-round Tree Contraction

submitted

 $Mohammad Taghi\ Haji Aghayi,\ Marina\ Knittel,$ 

 $Hamed\ Saleh,\ Hsin ext{-}Hoa\ Su$ 

# Massively Parallel Algorithms for String Matching with Wildcards

submitted

2015

Mohammad Taghi Haji Aghayi, Hamed Saleh, Saeed Seddighin, Xiaorui Sun Preprint available at arXiv:1910.11829

## Honors and Awards

ACM-ICPC, International Collegiate Programming Contest by ACM.

- 15<sup>th</sup> Team in the 39<sup>th</sup> ACM-ICPC World Finals.

  Marrakech, Morocco
- 27<sup>th</sup> Team in the 37<sup>th</sup> ACM-ICPC World Finals. 2013 St. Petersburg, Russia
- 1<sup>st</sup>, 2<sup>nd</sup>, 1<sup>st</sup> Team in Regional Contests of ACM-ICPC West Asia Region, Tehran Site, respectively in 2012, 2013 and 2014.

Awarded University of Maryland <b>Dean's fellowship</b> . University of Maryland, College Park, MD	2018 - 2019
Gold Medal in the $20^{\rm th}$ Iranian National Olympiad in Informatics	. 2010
Awarded as <b>Outstanding Student</b> 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
Professional Software Engineer	
• Software Engineer Intern at Page Bites Inc.  Member of the team developing and maintaining the instant messenger imo.im.	2020
• Software Engineer at Cafe Bazaar Co.  Member of the Search project of Cafe Bazaar, dealing with Information Retrieval and Natural Language Processing challe	2016 - 2018 enges.
• Software Engineer at Lyan Co. Started an online marketing platform startup.	2015
• Android Developer Intern at Rahnema Co. Participant in Rahnema Co. Android Development Camp.	2013
Open Source Software Developer  • tps with Kian Mirjalali  A command line tool for preparing programming problems.	2017
• site-admin with Mohammad Amin Khashkhashi Moghadam A graphical interface for monitoring and managing nodes in a	2017 contest hall. 1
<ul> <li>HelliJudge with Mahrud Sayrafi.</li> <li>A programming competition judge with focus on security.</li> </ul>	2011
Research Assistant at Algorithms Laboratory University of Maryland, College Park Under supervision of Prof. M. HajiAghayi	2018 - present
Working on distributed/massively parallel algorithms for graph/combinatorial parallel algorithms for graph/com	
Visiting Graduate Student Simons Institute for Theory of Computing, Berkeley, CA Foundations of Data Science program	2018
Undergraduate member of <b>CE Algorithm Laboratory</b> Sharif University of Technology Under supervision of Prof. M. Ghodsi Working on the problem of fair allocation of indivisible goods	2016 - 2017
Teaching Assistant University of Maryland, College Park  • Discrete Structures, Spring 2020	2018 - present

Work Experience

 $\begin{array}{c} \textbf{Research} \\ \textbf{Experience} \end{array}$ 

Teaching Experience

 $^{1}\mathrm{tps}$  and site-admin are part of IOI  $^{2}\mathrm{017}$  tools developed by the organizing team

 $\bullet$  Introduction to Algorithms, Spring 2018, Spring 2019, and Fall 2019

• Introduction to Computer Systems, Fall 2018

### Teaching Assistant

2014 - 2016

Sharif University of Technology

- 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: LATEX, 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, WWW'20, FSTTCS'20, and SODA'21.

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 Feb, 2021