Mahsa Derakhshan

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Research Interests

- Big Data Algorithms.
- Algorithmic game theory

Education

- **PhD in Computer Science,** May 2017 to Present
  Computer Science Department, University of Maryland.
  · *Advisor*: Prof. MohammadTaghi Hajiaghayi
- **M.S. in Computer Science,** Jan 2016 to May 2017
  Computer Science Department, University of Maryland.
  · *Advisor*: Prof. MohammadTaghi Hajiaghayi
- **B.S. in Computer Software Engineering,** Sep 2011 to Dec 2015
  Computer Engineering Department, Sharif University of Technology
  · *Supervisor*: Prof. Mohammad Ghodsi

Honors and Awards

- **3rd place** in the Mid-Atlantic USA Regional ACM-ICPC Contest and advanced to ACM-ICPC World Finals 2017 — 2016
- Awarded as **Outstanding Student** by the university president — 2011
- Recipient of the grant for undergraduate studies from the Iranian National Elites Foundation, for outstanding academic success. — 2011 - 2015
- **Gold Medal** in the 19$^{\text{th}}$ Iraninan National Olympiad in Informatics. Young Scholars Club, Tehran, Iran. — 2010

Internships

- Software engineering internship at **Google** — Summer 2017
- Research internship at **Google** — Summer 2018

Publications

- *Spatio-Temporal Security Games Beyond One Dimension*
  S. Behnezhad, M. Derakhshan, M.T. Hajiaghayi, S. Seddighin
  EC'18
- *Brief Announcement: MapReduce Algorithms on Massive Trees*
  M.H. Bateni, S. Behnezhad, M. Derakhshan, M.T. Hajiaghayi, V. Mirrokni
  ICALP'18
- *From Battlefields to Presidential Elections: Winning Strategies of Blotto and Auditing Games*
  S. Behnezhad, A. Blum, M. Derakhshan, M.T. Hajiaghayi, M. Mahdian, C. Papadimitriou, R. Rivest, S. Seddighin, P. Stark
  SODA'18
- *On Distributed Hierarchical Clustering*
  M.H. Bateni, S. Behnezhad, M. Derakhshan, M.T. Hajiaghayi, R. Kiveris, S. Lattanzi, V. Mirrokni
  NIPS'17
- *A Polynomial Time Algorithm For Spatio-Temporal Security Games*
  S. Behnezhad, M. Derakhshan, M.T. Hajiaghayi, A. Slivkins.
  EC'17

- *Graph Matching in Massive Datasets*
  S. Behnezhad, M. Derakhshan, H. Esfandiari, M.T. Hajiaghayi, E. Tan, H. Yammi.
  SPAA'17
- *Faster and Simpler Algorithm for Optimal Strategies of Blotto Game*
  S. Behnezhad, S. Dehghani, M. Derakhshan, S. Seddighin, M.T. Hajiaghayi.
  AAAI'17

Teaching Experience

- **Teaching Assistant**, University of Maryland
  - Introduction to Algorithms (Spring 2016)
- **Teaching Assistant**, Sharif University of Technology
  - Data Structures and Fundamentals of Algorithms (Fall 2013, Fall 2014)
  - Design of Algorithms (Fall 2013, Spring 2014, Fall 2014)
  - Theory of Computation and Complexity (Spring 2014)
  - Discrete Structures (Spring 2015)
- **Teaching in High Schools**
  Preparing students for Olympiad in Informatics. Topics included Algorithms, Graph Theory, Problem Solving Strategies, and Programming in c++.

Coursework

- **University of Maryland:**
  - Applied Mechanism Design for Social Good
  - Advanced Topics in Theory of Computing: Bandits, Experts, and Games
  - Information Centric Design of Systems
  - Randomized Algorithms
- **Sharif University Of Technology:**
  - Advanced Topics in Theory of Computability, Complexity and Logic
  - Advanced Computational Geometry
  - Web programming

Skills

- **Programming/Scripting Languages:** C++, Java and Python.
- **Hadoop Eco-systems:** Spark, Google Flume
- **Web/DB Technologies:** HTML5, CSS3, Javascript and SQL
- **Theory Topics:** Skilled in Algorithms and Graph Theory
- **Operating Systems:** Mac, Windows, Linux
- **Typesetting:** LaTeX, TeX, Vim,
- **Tools/Software:** TensorFlow (TFX)

Language

- Persian (native), English (fluent).

Refrences

- Available upon request.