Soroush Ebadian

email: soroush@cs.toronto.edu
mobile: +1 (647) 937 3617

EDUCATION

- **Ph.D. in Computer Science** — Sep. 2020 – Present
  University of Toronto, Toronto, Canada — CGPA: 4+/4
  Advisor: Prof. Nisarg Shah

- **B.Sc. in Computer Engineering** — Sep. 2015 – Aug. 2020
  Sharif University of Technology, Tehran, Iran — CGPA: 18.68/20
  Thesis: *A Simple Randomized Algorithm for All Nearest Neighbors*

PUBLICATIONS

C1. **Soroush Ebadian**, Anson Kahng, Dominik Peters, and Nisarg Shah, "Optimized Distortion and Proportional Fairness in Voting," 2022. *Proceedings of the 23rd ACM Conference on Economics and Computation* (**EC'22**).

C2. **Soroush Ebadian**, Rupert Freemen, and Nisarg Shah, "Efficient Resource Allocation with Secretive Agents," in *Proceedings of the 31st International Joint Conference on Artificial Intelligence* (**IJCAI'22**), 2022.

C3. **Soroush Ebadian**, Dominik Peters, and Nisarg Shah, "How to Fairly Allocate Easy and Difficult Chores," in *Proceedings of the 21st International Conference on Autonomous Agents and MultiAgent Systems* (**AAMAS'22**), 2022.

C4. **Soroush Ebadian** and Xin Huang, "Fast Algorithm for k-Truss Discovery on Public-Private Graphs," in *Proceedings of the 28th International Joint Conference on Artificial Intelligence* (**IJCAI'19**), 2019.

C5. **Soroush Ebadian** and Hamid Zarrabi-Zadeh, "A Simple Randomized Algorithm for All Nearest Neighbors," in *Proceedings of the 31st Canadian Conference on Computational Geometry* (**CCCG'19**), 2019.
  - **Invited to the special issue** of journal of **Computational Geometry**.

UNDERGRADUATE RESEARCH EXPERIENCE

- **Research Intern,** IST Austria — Summer 2019
  Worked on a concurrent program verfication language under the supervision of Prof. Thomas A. Henzinger.

- **Research Assistant,** Sharif University of Technology — 2019 – 2020
  Worked on the nearest neighbor search problem under the supervision of Prof. Hamid Zarrabi-Zadeh.

- **Research Intern,** Hong Kong Baptist University — 2018 – 2019
  Worked on algorithms for mining dense subgraphs in large-scale graphs of Prof. Xin Huang.

HONORS AND AWARDS

- Computer Science 50th Anniversary Graduate Scholarship, DCS, University of Toronto. — 2021
- **Gold medal** in the 24th Iranian National Olympiad in Informatics (INOI) — 2014
- **2nd place** in the **ACM-ICPC** West Asia Regional Contest, Tehran, Iran. — 2015
- **4th place** in the Iranian National Scientific Olympiad in Computer Science and Engineering. — 2019
- Recipient of the grant for undergraduate studies from the Iranian National Elites Foundation. — 2014 – 2020
  For outstanding academic success.

- Recipient of Research Scholarship from the Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH).   Summer 2019
- **4th place** in the International IranOpen Robotics Competition in Rescue Agent Simulation League.   2013

Teaching Experience

- **Teaching Assistant,** CS Department, University of Toronto
  - CSC2556 Algorithms for Collective Decision Making   Winter 2022
  - CSC373 Algorithm Design, Analysis and Complexity   Fall 2021
  - CSC263 Data Structures and Analysis   Summer 2021
  - CSC303 Social and Economics Networks   Winter 2021

- **Teaching Assistant,** CE Department, Sharif University of Technology
  - Design and Analysis of Algorithms   Fall 2017, 2018, 2019
  - Discrete Structures   Spring 2019
  - Algorithmic Game Theory   Spring 2019
  - System Analysis and Design   Fall 2018, Spring 2019
  - Data Structures and Algorithms   Spring 2016

- **Instructor**, INOI Summer Camp   2016, 2017, and 2020
  Taught advanced topics in Algorithms, Data Structures, and Algorithmic Graph Theory to students preparing for IOI.
- **Lecturer**, Allameh Helli High-School   2015 – 2016, Fall 2019
  Taught Algorithms and Data Structures to students preparing for the National Olympiad in Informatics (INOI).

Working Experience

- **Product Manager, CafeBazaar**   Dec. 2019 – Sep. 2020
  - **Zeerak**: Led six cloud infrastructure services in three teams providing storage, database, and big data management services to tech companies with millions of users such as CafeBazaar and Divar.

- **Product Manager, CafeBazaar**   Jan. 2017 – Dec. 2018
  - **Divar**: Released a multi-device access chat feature on three platforms for Divar online classified ads with 16M users.
  - **Rivers**: Released the beta version of a messaging-based team collaboration app called Rivers with a team of size 20 in Delhi and Tehran.

- **Software Engineer, CafeBazaar**   April 2015 – Jan. 2017
  - **iOS Software Engineer**: Developed a buyer-seller messaging feature on iOS client of Divar with 2M iOS users.
  - **Back-end Engineer**: Scaled back-end infrastructure accepting 100M impressions per day from 25M.

Other Activities

- **Task Preparation System** for **IOI 2017** [Technical Report, GitHub]   2016 – 2017
  Developed a system for preparing IOI tasks by Scientific Committee. Used at IOI 2017 and 2019.
- Member of **Scientific Committee** of Programming Contests
  Designed programming contests and authored problems with an algorithmic theme.
  - West Asia ACM ICPC Regional Contest   2018 – 2019
  - Iran's IOI Team Selection Exams   2016 – 2019
  - INOI Summer Camp Programming Exams   2015 – 2017