

Maryam Negahbani

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Education

- **Dartmouth College** Sep 2017-Jun 2022 (expected)
Ph.D. in Computer Science with Specialization in Algorithms
Advisor: Professor Deeparnab Chakrabarty
Thesis Topic: “Approximation Algorithms for Generalized Clustering and Outlier Detection”
- **Sharif University of Technology**, Tehran, Iran Sep 2014-Jan 2017
M.Sc. in Computer Science, GPA: 18.25/20
Advisor: Professor M. H. Foroughmand-Araabi
Thesis: “A Survey on the Steiner Forest Problem”

Experiences

- **Research Intern**, Google NYC Jun 2021-Sep 2021
Improved a clustering algorithm used in Google News to classify articles recommended to users.
- **Co-advisor**, Dartmouth College 2019-2020
Co-advised undergraduate students for research at Dartmouth College in collaboration with Professor D. Chakrabarty.
Ziray Hao 2020, Ray Huang Winter 2020, and Nicolas J. Flores 2019 (resulted in a paper published in NeurIPS '19)
- **Software Engineering Intern**, Google NYC Jun 2018-Sep 2018
Improved on a TensorFlow model and the data production pipeline to estimate user's propensity to subscribe to a publisher.

Skills

- **Programming Languages:** C++, Java, Python, and Matlab
- **Tools:** TensorFlow, Scikit-Learn, CPLEX, and Flume

Publications

Author names are in alphabetical order

- **Better Algorithms for Individually Fair k -Clustering** 2021
Conference on Neural Information Processing Systems [NeurIPS]
Chakrabarty, D., Negahbani, M.
Code available on <https://github.com/moonin12/individually-fair-k-clustering/>
- **Revisiting Priority k -Center: Fairness and Outliers** 2021
International Colloquium on Automata, Languages and Programming [ICALP]
Bajpai, T., Chakrabarty, D., Chekuri, C., Negahbani, M.
- **Robust k -Center with Two Types of Radii** 2021
Integer Programming and Combinatorial Optimization [IPCO]
Chakrabarty, D., Negahbani, M.
- **Fair Algorithms for Clustering** 2019
Conference on Neural Information Processing Systems [NeurIPS]
Bera, S.K., Chakrabarty, D., Flores N., Negahbani, M.

	<ul style="list-style-type: none"> Generalized Center Problems with Outliers Jul 2019 ACM Transactions on Algorithms [TALG] First version appeared in International Colloquium on Automata [ICALP] 2018 Chakrabarty, D., Negahbani, M.
Honors and Awards	<ul style="list-style-type: none"> Patrick Tsang Memorial Award: Best Teaching Assistant of the Year Aug 2021 Department of Computer Science, Dartmouth College Selected by the faculty as the best TA for the academic year of 20-21, based on faculty and student feedback. ACM-ICPC, International Collegiate Programming Contest by ACM Dec 2013 Ranked 9th in ACM-ICPC Asia Tehran Regional Contest.
Talks and Presentations	<ul style="list-style-type: none"> Invited talk: <i>Revisiting Priority k-Center: Fairness and Outliers</i> Oct 27th, 2021 2021 INFORMS Annual Meeting, Anaheim, California, USA. Invited talk: <i>Fair Algorithms for Clustering</i> June 22nd, 2021 The 1st Bilbao Workshop on Algorithmic Fairness, Basque Center for Applied Mathematics, Bilbao, Spain. <i>Robust k-Center with Two Types of Radii</i> May 20th, 2021 The 22nd Conference on Integer Programming and Combinatorial Optimization [IPCO], Atlanta, Georgia, USA. Invited talk: <i>Revisiting Priority k-Center: Fairness and Outliers</i> May 17th, 2021 Fairness in AI Seminar Series, University of Maryland, College Park, Maryland, USA.
Teaching Experience	<ul style="list-style-type: none"> Teaching Assistant, Dartmouth College Spring 2021 Advanced course on Randomized Algorithms by Prof. D. Chakrabarty Held office hours and graded homework. Teaching Assistant, Dartmouth College Spring 2020 and Winter 2021 Algorithms course by Prof. D. Chakrabarty Held office hours, graded homework, and supervised other teaching assistants. Teaching Assistant, Dartmouth College Spring 2019 Algorithms course by Prof. T. H. Cormen Taught one lecture (on Dijkstra's algorithm), held office hours, and supervised other teaching assistants. Teacher, ACM-ICPC Prep. Course, Aug 2014-Sep 2014 University of Isfahan, Iran Taught Data Structures and Algorithms 4 hrs/week to 46 undergraduate students Designed the curriculum and homework problems. C++ Programming Classes (extracurricular) Oct 2012-Dec 2012 University of Isfahan, Iran Taught C++ 3hrs/week to 71 Computer Science and Math undergraduate students Curriculum was the university standard. I designed homework problems and quizzes.