

Yuval Efron

efronyuv@gmail.com | +972543142904

Ph.D. Candidate at Columbia University, working primarily on optimization through the lens of distributed computing. General research interests revolve around information-theoretical aspects of optimization

EDUCATION

Ph.D. Candidate, Computer Science

New York, NY | Dec 2021-present

SUPERVISOR: PROF. TONIANN PITASSI, COLUMBIA UNIVERSITY

Ph.D. Candidate, Computer Science

Toronto, ON | Sep 2020-Dec 2021

SUPERVISOR: PROF. TONIANN PITASSI, UNIVERSITY OF TORONTO

M.Sc., Computer Science, Thesis: "New Advances in Distributed Optimization and Distance Computation". GPA: 3.8

Haifa, IL | May 2018-Aug 2020

SUPERVISOR: PROF. KEREN CENSOR-HILLEL, TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY

Teaching Assistant: Distributed Graph Algorithms

B.Sc., Computer Science, cum laude, GPA: 3.6

Haifa, IL | Sep 2015-May 2018

TECHNION-ISRAEL INSTITUTE OF TECHNOLOGY

Coursework: Took courses on a variety of subjects in Theoretical Computer Science, encompassing a wide range of areas such as probabilistic methods, online algorithms, advanced data structures, approximation algorithms, distributed computing, theory of databases, algorithmic game theory, and machine learning.

RESEARCH EXPERIENCE

UNIVERSITY OF COPENHAGEN | RESEARCH ASSISTANT

Copenhagen, DK | July 2021 - Sep 2021

- Worked in Prof. Danupon Nanongkai's group on information theoretic aspects of fundamental optimization problems. Some of the results are in submission to STOC 2022.

AALTO UNIVERSITY | RESEARCH ASSISTANT

Helsinki, FI | Aug 2019 – Oct 2019

- Worked in Prof. Jukka Suomela's group on fundamentals of distributed computing in the LOCAL model. The results were published in DISC 2020.

TECHNION | RESEARCH ASSISTANT

Haifa, IL | June 2017 – Oct 2017

- During 2nd year of undergrad, worked in Prof. Eitan Yaakobi's group on the design and analysis of error correcting codes for distributed storage systems. Results published in the IEEE transactions on information theory journal.

FEATURED PUBLICATIONS

STAR CONTRACTION PRESERVING EDGE CONNECTIVITY AND APPLICATIONS

IN SUBMISSION, STOC 2022

with Simon Apers, Pawel Gawrychowski, Troy Lee, Sagnik Mukhopadhyay, Danupon Nanongkai

DISTRIBUTED WEIGHTED MIN-CUT IN NEARLY-OPTIMAL TIME

STOC 2021

with Michal Dory, Sagnik Mukhopadhyay, Danupon Nanongkai

BEYOND ALICE AND BOB: IMPROVED INAPPROXIMABILITY FOR MAXIMUM INDEPENDENT SET

PODC 2020

with Ofer Grossman, Seri Khoury

HARDNESS OF DISTRIBUTED OPTIMIZATION

PODC 2019

with Nir Bachrach, Keren Censor-Hillel, Michal Dory, Dean Leitersdorf, Ami Paz

ADDITIONAL PUBLICATIONS: SEE DBLP 