

Yusuf Hakan Kalaycı

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Education

- 2019-Present **Ph.D. Candidate in Computer Science**, *University of Southern California*, Los Angeles, USA.
Advisor : Shaddin Dughmi
Co-advisor : David Kempe
- 2013-2019 **B.Sc. in Computer Engineering**, *Boğaziçi University*, İstanbul, Turkey.
Senior Project Advisor : Ali Taylan Cemgil
Project Title: Applications of Tensor Factorization Methods to Machine Learning
- 2015-2019 **B.Sc. in Mathematics**, *Boğaziçi University*, İstanbul, Turkey.
Senior Project Advisor : Ümit Işlak
Project Title: Applications of Finite Automaton Techniques to Longest Common Subsequence Problem

Research Interests

Online and combinatorial optimization under uncertainty. Approximate counting and uniform sampling of combinatorial objects.

Awards/Honors

- 2013 Gold Medal in International Olympiad in Informatics (IOI), Australia
2013 Gold Medal in Balkan Olympiad in Informatics (BOI), Bosnia and Herzegovina
2013 Gold Medal in Turkish National Olympiad in Informatics
2012 Bronze Medal in Balkan Olympiad in Informatics (BOI), Serbia
2012 Silver Medal in Turkish National Olympiad in Informatics

Publications/Preprints

Shaddin Dughmi, Yusuf Hakan Kalaycı, Neel Patel: *On Sparsification of Stochastic Packing Problems*, (Submitted to SODA 2023).

Conference Participation without Talk

- 08/2020 Prague Summer School on Discrete Mathematics 2020, Virtual
07/2020 The Twenty-First ACM Conference on Economics and Computation (EC'20), Virtual
06/2020 52nd Annual ACM Symposium on Theory of Computing (STOC'20), Virtual
01/2019 Geometry of Polynomials Boot Camp, UC Berkeley, Berkeley CA
11/2018 Applications of Partition Functions, EPFL, Lausanne

Teaching Experience

University of Southern California, Teaching Assistant, Computer Science

Fall 2022 CSCI 670 - *Advanced Analysis of Algorithms* taught by Prof. David Kempe.

Fall 2021 CSCI 670 - *Advanced Analysis of Algorithms* taught by Prof. Shang-Hua Teng.

Boğaziçi University, Student Assistant, Mathematics Department

Summer 2018 Math 345 - *Probability Theory*

inzva, Coach and Co-organizer

July 2018 Algorithmic Competition Summer Camp 2018

inzva is a non-profit educational organization for gifted youth.

Boğaziçi University, Student Assistant, Computer Engineering Department

Fall 2017 Cmpe 250 - *Algorithms and Data Structures*

Scientific and Technological Research Council of Turkey (TUBITAK)

2013-2018 Training of Turkish National Olympiad team for International Olympiad in Informatics

Working Experience

Jul 2017 - Voluntary at inzva

Aug 2019

Jun 2018 - Machine Learning Intern at AI-SOLT, Istanbul/Turkey

Jul 2018

Jul 2016 - Business Technical Intern at Google, Dublin/Ireland

Sept 2016

2013 - 2018 Judge and problem setter in Turkish National Olympiads in Informatics

Service

Mar 2020 TUBITAK 2248 Mentoring support program towards high school students.

Sept 2019 Judge and problem setter in Turkish Programming Contest 2019.

Summer 2019 Co-organized Algorithmic Competition Summer Camp 2019 at inzva.

Summer 2018 Co-organized Algorithmic Competition Summer Camp 2018 at inzva.

Jan 2018 Co-organized Algorithmic Competition Winter Camp 2018 at inzva.

2013-2018 Judge and problem setter in Turkish National Olympiad in Informatics