# Utku Umur Acikalin

Research Interests: Combinatorial Optimization, Algorithms

Applications of NLP on Economics & Finance

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#### **EDUCATION**

# TOBB University of Economics and Technology, Ankara/Turkey 2019-2022

Master of Science, Computer Engineering, GPA:4.00 Advisor: Asst. Prof. Bugra Caskurlu

# TOBB University of Economics and Technology, Ankara/Turkey 2015-2019

Bachelor's Degree, Computer Engineering, GPA:3.74

#### **PUBLICATIONS**

- J1. Caskurlu B, **Acikalin UU**, Kizilkaya FE, & Ekici O. "On approximate Nash equilibria of the two-source connection game", *Turkish Journal of Electrical Engineering and Computer Sciences*, 30(6), 2206-2220. 2022.
- C5. **Acikalin UU**, Kutlu M. "Patent Search Using Triplet Networks Based Fine-Tuned SciBERT", 3rd Workshop on Patent Text Mining and Semantic Technologies at ACM SIGIR, 2022.
- C4. **Acikalin UU** & Caskurlu B. "Multilevel memetic hypergraph partitioning with greedy recombination". In Proceedings of the Genetic and Evolutionary Computation Conference Companion (ACM SIGEVO GECCO '22), ACM. 2022. (Presented Online)
- C3. Acikalin UU, Caskurlu B, P Wojciechowski, K. Subramani. "New Results on Test-Cost Minimization in Database Migration", 2021, *International Symposium on Algorithmic Aspects of Cloud Computing (ALGOCLOUD)*, 2021.
- C2. Acikalin UU, B Bardak, M Kutlu. "Turkish Sentiment Analysis Using BERT", 28th Signal Processing and Communications Applications Conference (SIU). IEEE, 2020.
- C1. Subramani K, Caskurlu B, **Acikalin UU**. "Security-Aware Database Migration Planning", *International Symposium on Algorithmic Aspects of Cloud Computing (ALGOCLOUD)*. 2019. (Presented in Munich)

#### **WORKING PAPERS**

**Acikalin UU**, Caskurlu T, Hoberg G, Phillips GM. "Intellectual Property Protection Lost and Competition: An Examination Using Machine Learning", (Submitted to *The Quarterly Journal of Economics*)

Presented by coauthors at: NBER Big Data and High-Performance Computing for Financial Economics, NBER Summer Institute Innovation workshop, EFA 2022, (scheduled) AEA 2022, University of Alberta, University of Amsterdam, Columbia University, Harvard Business School, John Hopkins University, University of Minnesota, University of Maryland, and University of Notre Dame, Peking University, UCLA, Yeshiva University

Caskurlu B, Subramani K, **Acikalin UU**, Velasquez A, Wojciechowski P. "Models for test cost minimization in database migration", (Submitted to ACM Transactions on Database Systems (TODS))

**Acikalin UU**, Gorgun MK, Kutlu M, Tas BKO. "How You Describe Procurement Calls Matters: Predicting Competition and Cost-Effectiveness of European Union Public Procurement Calls Using Their Description", (Submitted to Natural Language Engineering)

**Acikalin UU,** Caskurlu B, Subramani K. "Security-Aware Database Migration Planning", (Under revision Constraints)

Caskurlu B, Ekici O, **Acikalin UU**. "Geometric hitting set problem for disks with a point in the center", (Submitted to Turkish J Math)

**Acikalin** UU, Caskurlu B. "Ant-colony based coarsening scheme for Multilevel Hypergraph Partitioning".

**Acikalin** UU, Kutlu M, Tas BKO, "Key Features of Public Procurement of Innovation: Evidence from the US Public Procurement Market".

#### **ACHIEVEMENTS**

2020-2022 TUBITAK 2210 M.S. Scholarship

2019-2021 TOBB Univ. of Economics and Technology Graduate Program Special Merit Scholarship

2019 TUBITAK Undergraduate Research Project Contest 2<sup>rd</sup> prize

2017 Android Academy Entrepreneurship Foundation Contest Semi-finalist

2017-2019 TOBB Univ. of Economics & Technology Undergraduate Program Merit Scholarship

2016-2017 Undergraduate TA (selected by the head of the department)

2011 Mersin University Math Contest for Elementary Schools - 1st place

2009 1. Turkish Child's Right Congress Representative

2009 Mersin University Math Contest for Elementary Schools - 3<sup>rd</sup> place

2007 European Chess Festival U10 – 2<sup>nd</sup> place

2006 Turkey Ministry of National Education Championship - 3<sup>rd</sup> place

2005 Turkey Ministry of National Education Championship - 9<sup>th</sup> place

2004 Mersin Sisecam Soda Industry Painting Contest - 3<sup>rd</sup> place

#### **TEACHING ASSISTANTSHIPS**

Introduction to Computer Programming (4 Semesters)
Design and Analysis of Algorithms (4 Semesters)
Social Networks (2 Semesters)
Combinatorics (2 Semesters)

### **PROFESSIONAL SERVICE**

Reviver for: IEEE Transactions on Circuits and Systems I

# **SKILLS**

Programming Languages: (proficient) Java, Python, C++, (familiar) C, Javascript, Ruby ML & Optimization Frameworks, Libraries: Pytorch, Sklearn, Transformers, Spacy, Lucene, CPLEX, Minizinc, Google OR Tools