

# Giannis Fikioris


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[giannisfikioris.org](https://giannisfikioris.org)



**Research** Theoretical Computer Science, Algorithmic Game Theory, Learning Theory  
**Interests** Mechanism Design, Online Learning

**Education** **Cornell University**  AUG. 2020 – PRESENT  
Ph.D. in Computer Science  
Advised by: Éva Tardos  
GPA: 4.11  
Ithaca, NY, USA

**National Technical University of Athens**  SEP. 2014 – SEP. 2019  
Bsc in Electrical and Computer Engineering  
Advised by: Dimitris Fotakis  
GPA: 9.74/10 – 2<sup>nd</sup> out of 298 graduates in 2019  
Athens, Greece

**Publications** **Online Resource Sharing via DMMF: Efficiency, Robustness and Non-Stationarity**  
*arXiv pre-print*,  
Giannis Fikioris, Siddhartha Banerjee, Éva Tardos.

**An extension to “A subsemigroup of the rook monoid”**  
*Semigroup Forum (accepted in 2023)*,  
George Fikioris, Giannis Fikioris.

**Approximately Stationary Bandits with Knapsacks**  
*Conference on Learning Theory (COLT) 2023*,  
Giannis Fikioris, Éva Tardos.

**Liquid Welfare guarantees for No-Regret Learning in Sequential Budgeted Auctions**  
*ACM Conference on Economics and Computation (EC) 2023*,  
Giannis Fikioris, Éva Tardos.

**Robust Pseudo-Markets for Reusable Public Resources**  
*ACM Conference on Economics and Computation (EC) 2023*,  
Siddhartha Banerjee, Giannis Fikioris, Éva Tardos.

**Karma: Resource Allocation for Dynamic Demands**  
*OSDI 2023, USENIX Symposium on Operating Systems Design and Implementation*,  
Midhul Vuppallapati, Giannis Fikioris, Rachit Agarwal, Asaf Cidon, Anurag Khandelwal, Éva Tardos.

**Incentives in Dominant Resource Fair Allocation under Dynamic Demands**  
*arXiv pre-print*,  
Giannis Fikioris, Rachit Agarwal, Éva Tardos.

**A subsemigroup of the rook monoid**  
*Semigroup Forum (accepted in 2022)*,  
George Fikioris, Giannis Fikioris.

**Optimizing Vessel Trajectory Compression for Maritime Situational Awareness**  
*GeoInformatica (accepted in 2022)*,  
Giannis Fikioris, Kostas Patrourmpas, Alexander Artikis, George Paliouras, Manos Pitsikalis.

**Mechanism Design for Perturbation Stable Combinatorial Auctions**  
*Symposium on Algorithmic Game Theory (SAGT) 2020*,  
*Theory of Computing Systems*.  
Giannis Fikioris, Dimitris Fotakis.

## Fine-Tuned Compressed Representations of Vessel Trajectories

ACM International Conference on Information and Knowledge Management (CIKM) 2020,  
Giannis Fikioris, Kostas Patroumpas, Alexander Artikis, George Paliouras, Manos Pitsikalis.

## Optimizing Vessel Trajectory Compression

Maritime Big Data Workshop (MBDW) 2020,  
Giannis Fikioris, Kostas Patroumpas, Alexander Artikis.

### Work Experience

#### Google Research

Student Researcher

SEP. 2023 – Nov. 2023

Mountain View, California

Advised by Mingfei Zhao & Gagan Aggarwal, *Algorithms & Optimization Group*

#### National Centre for Scientific Research “Demokritos”

Research Associate

AUG. 2019 – JUL. 2020

Athens, Greece

Advised by Alexander Artikis, *Complex Event Recognition Group*

### Teaching experience

#### Cornell University

FALL 2020

Teaching Assistant, CS 4820 *Introduction to Analysis of Algorithms*

Ithaca, NY, USA

Instructor: *Dexter Kozen*

#### Cornell University

SPRING 2021

Teaching Assistant, CS 3110 *Data Structures and Functional Programming*

Ithaca, NY, USA

Instructor: *Michael Clarkson*

#### National Technical University of Athens

FALL 2019

Teaching Assistant, *Algorithms and Complexity*

Athens, Greece

Instructor: *Dimitris Fotakis*

### Awards

#### Cornell Conference Grant, Cornell University

2023

Awards \$700 to attend a professional conference to present.

#### NDSEG Fellowship, Cornell University

2022 – 2025

Offers full tuition and a monthly stipend for three years.

#### NSF GRFP Fellowship, Cornell University

2022

Offers partial tuition and a monthly stipend for three years (declined in favor of NDSEG).

#### Gerondelis Fellowship, Cornell University

2021

#### Papakyriakopoulos Award, National Technical University of Athens

2015

For highest grade in Mathematics-related courses in the 1<sup>st</sup> and 2<sup>nd</sup> semesters

#### Kritikos Grant, National Technical University of Athens

2015

For highest grade in Mathematics-related courses during the 1<sup>st</sup> academic year

#### Competitive Programming

2017 – 2019

1<sup>st</sup> and 2<sup>nd</sup> in Greece: IEEEExtreme 11.0 & 12.0, Google Hash Code 2018, ACM/ICPC SEERC 2019

### Service and Outreach

#### Helping URM Applicants with Graduate School Applications

FALL 2022

Program aimed to help underrepresented students with their graduate school applications.

#### Expanding Your Horizons at Cornell

SPRING 2022

Helped in workshop that aims to encourage middle/high-school girls to pursue science and math.

#### ACSU Computer Science Research Night at Cornell

FALL 2021 AND 2022

Presented my research to undergraduate students, to encourage them to participate in CS research.

#### Computer Science Undergraduate Research Program

SUMMER 2021

Worked with an undergraduate female student and professor Éva Tardos on a problem about information cascade in graphs.

#### Conference Reviewer

NeurIPS 2023, ALT 2024.

## Skills

### **Programming**

C/C++, Python, Java, Haskell, OCaml, Prolog,  $\text{\LaTeX}$ , Matlab, Mathematica

### **Languages**

English (fluent), Greek (native), German (intermediate)