

# Antonios Skarlatos

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linkedin, github, bitbucket

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## Education

- 2021 - Present **PhD in Computer Science.**
- Our group: Dynamic Algorithms Against Strong Adversaries
  - Paris Lodron Universität Salzburg
  - Supervisor: Dr. Sebastian Forster
- 2018 - 2021 (2.5 years) **Graduate Student in Theoretical Computer Science, CGPA: 9.63/10.**
- Department of Informatics and Telecommunications, Department of Mathematics, School of Electrical and Computer Engineering
  - National and Kapodistrian University of Athens, National Technical University of Athens
- Graduate Thesis **Approximation Algorithms for the Precedence Constrained Minimum Knapsack and Capacitated Covering Integer Programs.**
- Supervisor: Prof. Stavros Kolliopoulos
- 2014 - 2018 **Undergraduate Student in Computer Science, CGPA: 8.43/10.**
- Department of Informatics and Telecommunications
  - National and Kapodistrian University of Athens
- Undergraduate Thesis **Relationship between treewidth and important parameters and how NP-complete problems can be solved in polynomial time in graphs with bounded treewidth.**
- Supervisor: Prof. Stavros Kolliopoulos
- Summer School **Computer Science Student at the Cornell, Maryland, Max Planck Pre-doctoral Research School 2020.**
- Attended lectures and interacted with internationally leading scientists.
  - Exposed to state-of-the-art research and discussed how to pursue an academic or industrial research career in computer science.

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## Work Experience

- Internship **Student Researcher at Max Planck Institute for Informatics, November 2020 - April 2021.**
- Worked on the TSP problem in the 2D plane for the case that the input is a set of rays. We developed a polynomial-time algorithm.
  - Supervisors: Dr. Antonios Antoniadis, Dr. Sándor Kisfaludi-Bak
- Freelancing **Freelance Projects.**
- Part-time freelance projects in C, C++, Java, Python, PHP.
- Open source chat **Ting.**
- Ting (<https://github.com/dionyziz/ting>) is primarily created for educational purposes. It uses DJANGO for the back-end and REACT.JS for the front-end.

University **ML and Big Data.**

- Projects
- Used the scikit-learn library in Python for classifying articles.
  - Used the Locality-Sensitive Hashing (LSH) technique for finding the closest curves based on a distance.
  - Used the LSH technique with minhashing for identifying families based on their internet connection.

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## Publications

*Authors are listed in alphabetic order.*

SODA 2024 **Dynamic algorithms for k-center on graphs.**

- Authors: Emilio Cruciani, Sebastian Forster, Gramoz Goranci, Yasamin Nazari, Antonis Skarlatos
- Symposium on Discrete Algorithms

GandALF 2023 **Fast Algorithms for Energy Games in Special Cases.**

- Authors: Sebastian Forster, Antonis Skarlatos, Tijn de Vos,
- 14th International Symposium on Games, Automata, Logics, and Formal Verification

ESA 2023 **Bootstrapping Dynamic Distance Oracles.**

- Authors: Sebastian Forster, Gramoz Goranci, Yasamin Nazari, Antonis Skarlatos
- 31st European Symposium on Algorithms

ESA 2022 **Computing Smallest Convex Intersecting Polygons.**

- Authors: Antonios Antoniadis, Mark de Berg, Sándor Kisfaludi-Bak, Antonis Skarlatos
- 30th European Symposium on Algorithms

WAOA 2021 **Precedence-Constrained Covering Problems with Multiplicity Constraints.**

- Authors: Stavros G. Kolliopoulos, Antonis Skarlatos
- 19th Workshop on Approximation and Online Algorithms, 2021

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## Technical Skills

Prog. Languages C, C++, Python  
(Preferred)

Prog. Languages Java, C#, PHP, Prolog, Haskell, Javascript, SQL  
(Used)

Skills Algorithms, Data structures, Graph Theory

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## Extracurricular Activities

- Presented principles of Theory of Computation and Turing machines to high school students.
- Helped a few students from my high school with some concepts about algorithms.

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## Hobbies and Interests

Computer Science Solving algorithmic problems and participating in competitions online (Competitive Programming). Achievements include qualifying for Round 2 of Facebook Cup in 2016, 2017, 2018.

Others Music, guitar, football (soccer), travelling.