MARIOS A. PAPACHRISTOU (Last Updated: November 9, 2022)

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Areas

Machine Learning, Data Mining, Algorithms, Social and Information Networks

EDUCATION

Cornell University

2020 - exp. 2026

Ph.D. Candidate in Computer Science (GPA: 4.0/4.0), Minor: Applied Math

- Advisor: Jon Kleinberg
- Relevant Coursework: Analysis of Algorithms, Information Networks, Numerical Methods for Data Science, Design of Online Marketplaces, ML Theory

M.S. in Computer Science, Minor: Applied Math (GPA: 4.0/4.0)

2020-2022

National Technical University of Athens

2015-2020

Diploma in ECE (GPA: 9.49/10.00). Major: Computer Science.

- Advisor: Dimitris Fotakis

Publications

- 1. Marios Papachristou, Rishab Goel, Frank Portman, Matt Miller, Rong Jin. "GLINKX: A Scalable Unified Framework for Homophilous and Heterophilous Graphs". NeurIPS workshop on Graph Learning Frontiers (GLFrontriers), 2022. [preprint]
- 2. Marios Papachristou, Sid Banerjee, Jon Kleinberg. "Dynamic Interventions for Networked Contagions". *EAAMO 2022 (poster)*. [preprint] [code] [poster]
- 3. Marios Papachristou, Jon Kleinberg. "Core-periphery Models for Hypergraphs". $\overline{KDD~2022}$.

[paper] [code] [data] [slides] [poster]

4. Marios Papachristou, Jon Kleinberg. "Allocating Stimulus Checks in Times of Crisis". WWW 2022.

[preprint] [code] [paper] [talk] [slides]

- 5. Marios Papachristou. "Sublinear Domination and Core-periphery Networks".

 Scientific Reports (Nature), 2021.

 [paper] [code]
- 6. $^{\alpha\beta}$ Apostolos Chalkis, Vissarion Fisikopoulos, Marios Papachristou, Elias Tsigaridas. "Truncated Log-concave Sampling with Reflective Hamiltonian Monte Carlo". Minor Revision at the ACM Transactions on Mathematical Software, 2021.

[preprint] [code]

- Marios Papachristou, Dimitris Fotakis. "Stochastic Opinion Dynamics for User Interest Prediction in Online Social Networks". Preprint, 2020. [preprint]
- 8. Marios Papachristou. "Software clusterings with vector semantics and the call graph". ESEC/FSE 2019.

[paper] [code] [data] (ESEC/FSE Student Research Competition Finalist Paper)

9. Vasilis Kostakis*, and Marios Papachristou*. "Commons-based peer production and digital fabrication: The case of a RepRap-based, Lego-built 3D printing-milling machine". Telematics and Informatics, 2014.

[paper]

 $^{^{\}alpha\beta}$ = alphabetical order, * = equal contribution

Research	Twitter Cortex (Research Internship) May 2022 - Augustian - Augus	ret 9099
EXPERIENCE	- Research on scalable machine learning on graphs. Development of a simple scalable method for node classification in homophilous and heterophilous graphs. Paper and US patent submitted.	
	Cornell University (Graduate Research Assistant) – Thesis research. Advisor: Jon Kleinberg.	y 2021 –
	GeomScale Organization — Part-time research on sampling from truncated log-concave densities, and optimization, working on the volesti open-source package.	y 2020 – l convex
	Business Analytics Lab (Undergraduate Researcher) 2018 – 2020 – Project: SADE. Architecture recovery via call graphs, source code embeddings, and clustering methods.	
	Hellenic Center for Marine Research June 2014 - Augustian	ıst 2014
	P2P Lab (Remote Research Associate) 20	13-2014
OTHER Experience	Google Summer of Code 2020 (GeomScale) - Project: Sampling from high-dimensional truncated log-concave densities [code] [talk1] [talk2]	
	Google Summer of Code 2018 (GFOSS-OTA) April 2018-September - Project: 3gm. Automated codification of Greek Legislation. [code] [data] [talk]	er 2018
	Ratle (Co-founder) October 2017–Octob	per 2018
Teaching	Undergraduate Teaching Assistant (NTUA)	
	- Discrete Mathematics (4th Semester) Spri	ng 2017
		$ng \ 2016$
	- Introduction to Computer Programming (1st Semester) Fall 2016, F	all 2017
Honors &	- LinkedIn Ph.D. Fellowship (14.8& acceptance rate)	2022
AWARDS	- A.G. Leventis Scholarship (12.5% acceptance rate)	2022
	- Chateaubriand Fellowship (declined)	2022
	- Cornell Fellowship	2020
	- Thomaidion Award	2019
	- ESEC/FSE 2019 ACM Student Research Competition Finalist	2019
	- 4th (out of 93) in International Space Engineering Competition (CanSat	,
	 2nd Award at the "be finnovative 2.0 accelerator" 1st Award at "Crowdhackathon Fintech #2" 	2018 2017
	- Top %1 worldwide in IEEEXtreme 11.0 Programming Competition	2017
	- Touramanoglu Scholarship	2015
	- "The Great Moment of Education" Scholarship	2015
SERVICE	 Program Committee. FAccT '22 Reviewer. ECML-PKDD '23, GLFrontiers@NeurIPS '22, JOSS, WHMD@NeurIPS '21, OR Spectrum Mentorship. 	
	• Google Summer of Code	2019-
	o Cornell Unvergraduate Artificial Intelligence Group	2022-
	• Student-applicant support program at Cornell CS	2022