Marios A. Papachristou (Last Updated: September 22, 2022)

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Interests

Areas: Social and Information Networks, Machine Learning, Data Mining, Algorithms Foci: Statistical Modeling of Networks, Financial Networks, Graph ML

EDUCATION

Cornell University

2020 - exp. 2026

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

- Advisor: Jon Kleinberg, Committee: Jon Kleinberg, Emma Pierson, Sid Banerjee
- 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.

Thesis: "Stochastic Opinion Dynamics for Interest Prediction in Online Social Networks". Advisor: Dimitris Fotakis.

Publications

- 1. Papachristou, Marios, Banerjee, Sid, and Kleinberg, Jon. "Dynamic Interventions for Networked Contagions". EAAMO 2022 (poster). [preprint] [code] [poster]
- 2. Papachristou, Marios, and Kleinberg, Jon. "Core-periphery Models for Hypergraphs". KDD 2022.
 - [paper] [code] [data] [slides] [poster]
- 3. Papachristou, Marios, and Kleinberg, Jon. "Allocating Stimulus Checks in Times of Crisis". WWW 2022. [preprint] [code] [paper] [talk] [slides]
- 4. Papachristou, Marios. "Sublinear Domination and Core-periphery Networks". Scientific Reports (Nature), 2021. [paper] [code]
- 5. $^{\alpha\beta}$ Chalkis, Apostolos, Fisikopoulos Vissarion, **Papachristou, Marios**, and Tsigaridas, Elias. "Truncated Log-concave Sampling with Reflective Hamiltonian Monte Carlo". Preprint, 2021. [preprint] [code]
- 6. Papachristou, Marios, and Fotakis, Dimitris. "Stochastic Opinion Dynamics for User Interest Prediction in Online Social Networks". Preprint, 2020. [preprint]
- 7. Papachristou, Marios. "Software clusterings with vector semantics and the call graph". ESEC/FSE 2019. [paper] [code] [data] (ESEC/FSE Student Research Competition Finalist Paper)
- 8. Kostakis, Vasilis*, and Papachristou, Marios*. "Commons-based peer production and digital fabrication: The case of a RepRap-based, Lego-built 3D printing-milling machine". Telematics and Informatics, 2014. [paper]

Research EXPERIENCE

Twitter Cortex (Research Internship)

May 2022 - August 2022

Research on scalable Graph Machine Learning.

 $[\]alpha\beta$ = alphabetical order, * = equal contribution

	Cornell University (Graduate Research Assistant	May 2021 -
	GeomScale Organization — Part-time research on sampling from truncated log-concave densities, and convex optimization, working on the volesti open-source package.	
	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 – August 2014
	P2P Lab (Remote Research Associate)	2013-2014
Professional Experience	Google Summer of Code 2020 (GeomScale)	June 2020– August 2020
	 Project: Sampling from high-dimensional truncated log-concave densities. [code] [talk1] [talk2] 	
	Google Summer of Code 2018 (GFOSS-OTA)	April 2018–September 2018
	 Project: 3gm. Automated codification of Greek Legislation. [code] [data] [talk] 	
	Ratle (Co-founder)	October 2017-October 2018
TEACHING HONORS & AWARDS	Undergraduate Teaching Assistant (NTUA) - Discrete Mathematics (4th Semester) - Programming Techniques (2nd Semester) - Introduction to Computer Programming (1st Sem - LinkedIn Ph.D. Fellowship - A.G. Leventis Scholarship - Chateaubriand Fellowship (declined) - Cornell Fellowship - Thomaidion Award - ESEC/FSE 2019 ACM Student Research Competitions	2022 2022 2022 2020 2019
	- 4th (out of 93) in International Space Engineering Competition (CanSat) 2019 - 2nd Award at the "be finnovative 2.0 accelerator" 2018 - 1st Award at "Crowdhackathon Fintech #2" 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. GLFrontiers@NeurIPS '22, JOSS, WH trum Mentor. Google Summer of Code Mentor GeomScale organization 	2021, 2022
	。 GFOSS-OTA	2019