
MARIOS A. PAPACHRISTOU (Last Updated: February 13, 2023)

CONTACT INFORMATION E-mail papachristoumarios@cs.cornell.edu
GitHub [papachristoumarios](https://github.com/papachristoumarios)
Office 302 Gates Hall, Cornell University, 107 Hoy Rd
Google Scholar [\[profile\]](#)
Twitter [@papachristoum](#)
Website papachristoumarios.github.io

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**, Amin Rahimian. “Cascading Failures, Power laws and Resiliency of Production Networks”. *Under review*. 2023.
 2. **Marios Papachristou**, Sid Banerjee, Jon Kleinberg. “Dynamic Interventions for Networked Contagions”. *WWW 2023*.
[\[preprint\]](#) [\[code\]](#) [\[poster\]](#)
 3. **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 (GLFrontiers)*, 2022.
[\[preprint\]](#) [\[poster\]](#) [\[workshop\]](#)
 4. **Marios Papachristou**, Jon Kleinberg. “Core-periphery Models for Hypergraphs”. *KDD 2022*.
[\[paper\]](#) [\[code\]](#) [\[data\]](#) [\[slides\]](#) [\[poster\]](#)
 5. **Marios Papachristou**, Jon Kleinberg. “Allocating Stimulus Checks in Times of Crisis”. *WWW 2022*.
[\[preprint\]](#) [\[code\]](#) [\[paper\]](#) [\[talk\]](#) [\[slides\]](#) [\[news\]](#)
 6. **Marios Papachristou**. “Sublinear Domination and Core-periphery Networks”. *Scientific Reports (Nature)*, 2021.
[\[paper\]](#) [\[code\]](#)
 7. $\alpha\beta$ 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.
[\[preprint\]](#) [\[code\]](#)
 8. **Marios Papachristou**, Dimitris Fotakis. “Stochastic Opinion Dynamics for User Interest Prediction in Online Social Networks”. *Preprint*, 2020.
[\[preprint\]](#)
 9. **Marios Papachristou**. “Software clusterings with vector semantics and the call graph”. *ESEC/FSE 2019*.
[\[paper\]](#) [\[code\]](#) [\[data\]](#) (*ESEC/FSE Student Research Competition Finalist Paper*)
 10. 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
EXPERIENCE

Twitter Cortex *May 2022 – August 2022*
– 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 *May 2021 – May 2022*
– Graduate Research Assistant. Advisor: Jon Kleinberg.

GeomScale Organization *May 2020 –*
– Part-time research on sampling from truncated log-concave densities, and convex optimization, working on the [volesti](#) open-source package.

Business Analytics Lab *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*

OTHER
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
ASSISTANTSHIPS

– The Structure of Information Networks (PhD-level, Cornell) *Spring 2023*
– Discrete Mathematics (NTUA) *Spring 2017*
– Programming Techniques (NTUA) *Spring 2016*
– Introduction to Computer Programming (NTUA) *Fall 2016, Fall 2017*

HONORS &
AWARDS

– LinkedIn Ph.D. Fellowship (14.8% acceptance rate) *2022*
– Gerondelis Scholarship *2022*
– 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) *2019*
– 2nd Award at the “*be finnovative 2.0 accelerator*” *2018*
– 1st Award at “*Crowdhackathon Fintech #2*” *2017*
– Top %1 worldwide in IEEEExtreme 11.0 Programming Competition *2017*
– Touramanoglu Scholarship *2015*
– “The Great Moment of Education” Scholarship *2015*

SERVICE

– *Program Committee*. [FAccT ‘22](#)
– *Reviewer*. [KDD ‘23](#), [ECML-PKDD ‘23](#), [GLFrontiers@NeurIPS ‘22](#), [JOSS](#), [WHMD@NeurIPS ‘21](#), [OR Spectrum](#), [Machine Learning](#)
– *Mentorship*: Google Summer of Code (2019–), Cornell Undergraduate AI Group (2022–), Student-applicant support program at Cornell CS (2022).