

---

MARIOS A. PAPACHRISTOU (Last Updated: March 20, 2023)

---

CONTACT INFORMATION      E-mail      [papachristoumarios@cs.cornell.edu](mailto:papachristoumarios@cs.cornell.edu)  
GitHub      [papachristoumarios](#)  
Office      302 Gates Hall, Cornell University, 107 Hoy Rd  
Google Scholar      [\[profile\]](#)  
Twitter      [@papachristoum](#)  
Website      [papachristoumarios.github.io](https://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  
[Google Scholar Profile](#)  
 $\alpha\beta$  = alphabetical order,  
\* = equal contribution

1. **Marios Papachristou**, Amin Rahimian. “Production Networks Resilience: Cascading Failures, Power Laws and Optimal Interventions”. *Under review*. 2023. [\[preprint\]](#) [\[code\]](#)
2. **Marios Papachristou**, Sid Banerjee, Jon Kleinberg, “Optimal Resource Allocation for Remediating Networked Contagions”. *Under review*. 2023. This paper incorporates and extends our previous papers: [link](#) and [link](#).
3. **Marios Papachristou**, Sid Banerjee, Jon Kleinberg. “Dynamic Interventions for Networked Contagions”. *WWW 2023*. [\[preprint\]](#) [\[code\]](#) [\[poster\]](#)
4. **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. [\[preprint\]](#) [\[poster\]](#) [\[workshop\]](#)
5. **Marios Papachristou**, Jon Kleinberg. “Core-periphery Models for Hypergraphs”. *KDD 2022*. [\[paper\]](#) [\[code\]](#) [\[data\]](#) [\[slides\]](#) [\[poster\]](#)
6. **Marios Papachristou**, Jon Kleinberg. “Allocating Stimulus Checks in Times of Crisis”. *WWW 2022*. [\[preprint\]](#) [\[code\]](#) [\[paper\]](#) [\[talk\]](#) [\[slides\]](#) [\[news\]](#)
7. **Marios Papachristou**. “Sublinear Domination and Core-periphery Networks”. *Scientific Reports (Nature)*, 2021. [\[paper\]](#) [\[code\]](#)
8.  $\alpha\beta$  Apostolos Chalkis, Vissarion Fisikopoulos, **Marios Papachristou**, Elias Tsigaridas. “Truncated Log-concave Sampling for Convex Bodies with Reflective Hamiltonian Monte Carlo”. *ACM Transactions on Mathematical Software (forthcoming)*, 2023. This paper incorporates and supersedes our previous [preprint](#). [\[code\]](#)
9. **Marios Papachristou**, Dimitris Fotakis. “Stochastic Opinion Dynamics for User Interest Prediction in Online Social Networks”. *Preprint*, 2020. [\[preprint\]](#)

10. **Marios Papachristou**. “Software clusterings with vector semantics and the call graph”. *ESEC/FSE 2019*.  
[\[paper\]](#) [\[code\]](#) [\[data\]](#) (*ESEC/FSE Student Research Competition Finalist Paper*)
11. 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.  
[\[paper\]](#)

## RESEARCH EXPERIENCE

**Twitter Cortex Applied Research** *May 2022 – August 2022*  
 – Scalable Graph Machine Learning on graphs.

**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).