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MARIOS A. PAPACHRISTOU (Last Updated: November 2, 2022)

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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](http://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**, 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. [\[preprint\]](#)
  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”. *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.  <sup>$\alpha\beta$</sup>  Apostolos Chalkis, Vissarion Fisikopoulos, **Marios Papachristou**, Elias Tsigaridas. “Truncated Log-concave Sampling with Reflective Hamiltonian Monte Carlo”. *Under Review*, 2021. [\[preprint\]](#) [\[code\]](#)
  7. **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. [\[paper\]](#)

<sup>$\alpha\beta$</sup>  = alphabetical order, \* = equal contribution

RESEARCH  
EXPERIENCE

**Twitter Cortex (Research Internship)** *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 (Graduate Research Assistant)** *May 2021 –*  
 – Thesis research. 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 (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*

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

**Undergraduate Teaching Assistant (NTUA)**  
 – Discrete Mathematics (4th Semester) *Spring 2017*  
 – Programming Techniques (2nd Semester) *Spring 2016*  
 – Introduction to Computer Programming (1st Semester) *Fall 2016, Fall 2017*

HONORS &  
AWARDS

– LinkedIn Ph.D. Fellowship (14.8% acceptance rate) *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.* [GLFrontiers@NeurIPS ‘22](#), [JOSS](#), [WHMD@NeurIPS ‘21](#), [OR Spectrum](#)  
 – *Mentorship.*  
   ◦ Google Summer of Code *2019–*  
   ◦ Cornell Unvergraduate Artificial Intelligence Group *2022–*  
   ◦ Student-applicant support program at Cornell CS *2022*