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

Contact Information		
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Interests

Areas: Social and Information Networks, Machine Learning, Data Mining, Algorithms
Focuses: 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". 2022, *Under review.*
2. **Papachristou, Marios**, and Kleinberg, Jon. "Core-periphery Models for Hypergraphs". 2022, *KDD 2022.*
   [code] [data]
3. **Papachristou, Marios**, and Kleinberg, Jon. "Allocating Stimulus Checks in Times of Crisis". 2021, *WWW 2022.*
   [preprint] [code] [paper] [talk] [slides]
4. **Papachristou, Marios** "Sublinear Domination and Core–periphery Networks". 2021, *Scientific Reports (Nature).*
   [paper] [code]
5. $^{\alpha\beta}$Chalkis, Apostolos, Fisikopoulos Vissarion, **Papachristou, Marios**, and Tsigaridas, Elias. "Truncated Log-concave Sampling with Reflective Hamiltonian Monte Carlo". 2021, *Preprint.*
   [preprint] [code]
6. **Papachristou, Marios**, and Fotakis, Dimitris. "Stochastic Opinion Dynamics for User Interest Prediction in Online Social Networks". 2020, *Preprint.*
   [preprint]
7. **Papachristou, Marios**. "Software clusterings with vector semantics and the call graph". ESEC/FSE 2019.
   [paper] [code] [data] *(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]

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

Research Experience

Twitter Cortex (Research Internship)   *May 2022 – August 2022*
 – Research on Graph ML on the UMR team.

Cornell University (Graduate Research Assistant)   *May 2021 –*

GeomScale Organization *May 2019 –*
- 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
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. Award* for the 2022-23 academic year. LinkedIn.
- *Chateaubriand* Fellowship for interning at INRIA Paris *(declined)*. Embassy of France in the United States & INRIA Paris.
- *Cornell New Student* Fellowship for the 2020-21 academic year. Cornell.
- *Thomaidion* Award. Publication during undergraduate studies (2019). NTUA.
- Programming Competition *IEEEXtreme 12.0.* Ranked 48th out of 4,000 Worldwide (top 1%), 1st in Greece, 13th in Europe (PComplete Team)
- 4th (out of 93) Place in *International Space Engineering Competition at Texas* (CanSat) organized by NASA Goddard and the Americal Astronautical Society
- 1st Award at *"Crowdhackathon Fintech #2"* for developing a cashierless system for retail shops to eliminate queues by National Bank of Greece
- 2nd Award at the *"be finnovative 2.0 accelerator"* for developing a cashierless system for retail shops to eliminate queues by National Bank of Greece
- ESEC/FSE 2019 ACM Student Research Competition Finalist
- 2nd Place at the *"ECESCON9"* Hackathon
- *"Touramanoglu"* Scholarship by Municipality of Helioupolis & Hymettus
- *"The Great Moment of Education"* Scholarship by Eurobank EFG

ACADEMIC SERVICE
- *Program Committee.* FAccT '22
- *Reviewer.* JOSS, WHMD@NeurIPS '21, OR Spectrum
- *Mentor.* Google Summer of Code Mentor
  - GeomScale organization *2021, 2022*
  - GFOSS-OTA *2019*