

# MARIOS A. PAPACHRISTOU

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RESEARCH INTERESTS EDUCATION	Data Science (Theoretical and Practical Aspects)	
	<b>Cornell University</b>	<i>2020 – exp. 2026</i>
	Ph.D. in Computer Science. Concentration on Data Science	
	<ul style="list-style-type: none"><li>– <i>Advisor</i>: Prof. Jon Kleinberg</li><li>– <i>GPA</i>: 4.0</li><li>– <i>Coursework</i>: Analysis of Algorithms, Optimal Stopping, Information Networks</li></ul>	
	<b>National Technical University of Athens</b>	<i>2015–2020</i>
	Diploma (5-year joint degree, 300 ECTS) Electrical & Computer Engineering (ECE)	
	<ul style="list-style-type: none"><li>– <i>GPA</i>: 3.8/4.0 (top 1%)</li><li>– <i>Major</i>: Computer Science (<i>Major GPA</i>: 3.8/4.0)</li><li>– <i>Thesis</i>: “Stochastic Opinion Dynamics for Interest Prediction in Online Social Networks”. <i>Advisor</i>: Dimitris Fotakis. <i>Grade</i>: 4.0/4.0</li></ul>	
PUBLICATIONS <a href="#">[GOOGLESCHOLAR]</a>	<ol style="list-style-type: none"><li>1. <b>Papachristou, Marios</b>. “Software clusterings with vector semantics and the call graph.” ESEC/FSE 2019. DOI: 10.1145/3338906.3342483. <a href="#">[link]</a></li><li>2. Kostakis, Vasilis, and <b>Papachristou, Marios</b>. “Commons-based peer production and digital fabrication: The case of a RepRap-based, Lego-built 3D printing-milling machine.” T&amp;I, 2014. DOI: 10.1016/j.tele.2013.09.006. <a href="#">[link]</a></li></ol>	
RESEARCH EXPERIENCE	<b>Business Analytics Lab (Undergraduate Researcher)</b>	<i>2018 – 2020</i>
	<ul style="list-style-type: none"><li>– Conduct research on Machine Learning on Software Engineering: Source Code Embeddings, Software Clusterings, Layering Violations</li><li>– Research funded by the CROSSMINER project, supported by <i>Horizon 2020</i> grant</li><li>– Research Advisor: Prof. Diomidis Spinellis</li></ul>	
	<b>Hellenic Center for Marine Research</b>	<i>June 2014 – August 2014</i>
	<b>P2P Lab (Remote Research Associate)</b>	<i>2013–2014</i>
PROFESSIONAL EXPERIENCE	<b>Google Summer of Code 2020 (GeomScale)</b>	<i>June 2020–</i>
	<ul style="list-style-type: none"><li>– <i>Project</i>: Sampling from high-dimensional log-concave densities</li><li>– Develop software for the efficient sampling from high-dimensional log-concave densities using first-order oracles in (un)-truncated settings <a href="#">[github]</a> <a href="#">[post]</a> <a href="#">[talk]</a></li><li>– The software includes ODE and SDE solver and samplers for convex body domains (convex polytopes).</li></ul>	
	<b>Google Summer of Code 2018 (GFOSS-OTA)</b>	<i>April 2018–September 2018</i>
	<ul style="list-style-type: none"><li>– Developed a fully functional project for text mining, cross-linking and automated codification of Greek Legislation using Natural Language Processing Methods and Practices. Project is hosted at <a href="#">3gm.ellak.gr</a> <a href="#">[repository]</a><ul style="list-style-type: none"><li>– Cross-linking into Dynamic Graphs</li><li>– Automated Codification</li><li>– Custom Version Control System</li><li>– Topic Modeling</li><li>– Embeddings</li><li>– Ranking (PageRank)</li><li>– Language Modeling and Legal Text Generation with DNNs</li><li>– Greek Legislative Texts Internet Archive Collection <a href="#">[link]</a></li></ul></li><li>– Project is in active development and receives funding</li></ul>	

	– Supervise graduate student for Google Summer of Code 2019	
	<b>Ratle (Co-founder)</b>	<i>October 2017–October 2018</i>
	– Cashierless shopping system.	
	– Bluetooth Signal Denoising with Kalman Filters, Product tracking inside stores, Enterprise application for Business Analytics	
	– Tested at real stores	
TEACHING ASSISTANTSHIP EXPERIENCE	<b>Undergraduate Teaching Assistant</b>	
	– Discrete Mathematics (4th Semester)	<i>Spring 2017</i>
	– Programming Techniques (2nd Semester)	<i>Spring 2016</i>
	– Introduction to Computer Programming (1st Semester)	<i>Fall 2016, Fall 2017</i>
TECHNICAL SKILLS	<b>Programming Languages</b> Python, C/C++, Java, JavaScript/TypeScript, Bash, OCaml, PHP, R, SQL	
	<b>Machine Learning Frameworks</b> PyTorch, Pyro, Tensorflow Keras, Sklearn, spaCy	
	<b>Data Analysis and Visualization</b> matplotlib, MATLAB, pandas, Bash	
	<b>Scientific Programming</b> SAGE, Octave, MATLAB, Scilab, NumPy, SciPy, OpenCV, NetworkX	
	<b>Databases</b> MySQL, MongoDB, PostgreSQL, Firebase	
	<b>Version Control</b> Git, Subversion	
HONORS & AWARDS	– Cornell New Student Fellowship (first-year).Cornell University.	
	– Programming Competition <i>IEEEExtreme 12.0</i> . Ranked 48th out of 4,000 World-wide (top 1%), 1st in Greece, 13th in Europe (PComplete Team)	
	– 4th (out of 93) Place in <i>International Space Engineering Competition at Texas</i> (CanSat) organized by NASA Goddard and the American Astronautical Society	
	– 1st Award at “ <i>Crowdhackathon Fintech #2</i> ” for developing a cashierless system for retail shops to eliminate queues by National Bank of Greece	
	– 2nd Award at the “ <i>be finnovative 2.0 accelerator</i> ” 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 “ <i>ECESCON9</i> ” Hackathon	
	– “ <i>Touramanoglu</i> ” Scholarship by Municipality of Helioupolis & Hymettus	
	– “ <i>The Great Moment of Education</i> ” Scholarship by Eurobank EFG	
VOLUNTEERING	– Teaching algorithms courses in National Competition for Informatics Camp	
	– Google Summer of Code Mentor	
	– Member of TEDx NTUA 2018 Organizing Committee, IT Team	
	– Contributor to open-source projects	
	– Member of Greek Free and Open-Source Software Organization GFOSS-OTA	
	– Voluntary Blood Donor	
REFERENCES AVAILABLE UPON REQUEST	Jon Kleinberg (Prof. at Cornell, PhD Advisor, <a href="mailto:kleinberg@cornell.edu">kleinberg@cornell.edu</a> )	
	Dimitris Fotakis (Assoc. Prof. at NTUA, U/G Advisor, <a href="mailto:fotakis@cs.ntua.gr">fotakis@cs.ntua.gr</a> )	
	Diomidis Spinellis (Prof. at AUEB, ex: Google, ex: GSIS SG, <a href="mailto:dds@aueb.gr">dds@aueb.gr</a> )	
	Vasilis Kostakis (Harvard BKC, <a href="mailto:kostakis@law.harvard.edu">kostakis@law.harvard.edu</a> )	
LAST UPDATED	February 10, 2021	