

## MARIOS A. PAPACHRISTOU

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RESEARCH INTERESTS	Data Science, Machine Learning, Recommender Systems, Computational Law, Software Engineering, Algorithms
EDUCATION	<p><b>National Technical University of Athens</b> 2015– (<i>expected graduation in 2020</i>) Diploma (5-year joint degree, 300 ECTS) Electrical &amp; Computer Engineering (ECE)</p> <ul style="list-style-type: none"><li>– <i>Current Cumulative GPA</i>: 9.38/10.00 (on transcript) – <b>top 1%</b></li><li>– <i>Expected Cumulative GPA</i> (on graduation): 9.60/10.00 (remainder of 8 courses and Thesis presentation)</li><li>– <i>Major</i>: <u>Computer Science</u></li><li>– <i>Thesis</i>: “<i>Personalized Recommendations with Limited Information</i>”. <i>Working paper and thesis. Advisor: Dimitris Fotakis</i></li></ul> <p><b>1st General Lyceum of Hymettus</b> 2012–2015 Apolytirion, Valedictorian, GPA: 19.8/20.0, top 2% in National Exams (18,971/20,000)</p>
PUBLICATIONS [GOOGLESCHOLAR]	<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>
WORKING PAPERS	<ol style="list-style-type: none"><li>1. Learning User Interests from Influencers in Online Social Networks. <i>Working paper. To be submitted</i></li><li>2. SalSAGAN: Spatio-Temporal Modeling via Transfer Learning for Video Saliency Estimation using Generative Adversarial Networks. <i>Early stage work.</i></li></ol>
RESEARCH EXPERIENCE	<p><b>Business Analytics Lab (Undergraduate Researcher)</b> August 2018 –</p> <ul style="list-style-type: none"><li>– Conduct research on Machine Learning on Software Engineering<ul style="list-style-type: none"><li>– Source Code Embeddings</li><li>– Software Clustering</li><li>– Layering Violations</li></ul></li><li>– Research funded by the CROSSMINER project, supported by <i>Horizon 2020</i> grant</li></ul> <p><b>Hellenic Center for Marine Research</b> June 2014 – August 2014</p> <ul style="list-style-type: none"><li>– Develop a system for marine species identification and morphometric analysis using features and ORB, SIFT and SURF descriptors in OpenCV [<a href="#">repository</a>]</li></ul> <p><b>P2P Lab (Remote Research Associate)</b> 2013–2014</p> <ul style="list-style-type: none"><li>– Publish self-made Lego 3D Printing-Milling machine at age 16 with Prof. Vasilis Kostakis [<a href="#">repository</a>]</li></ul>
PROFESSIONAL EXPERIENCE	<p><b>Google Summer of Code (Summer Internship)</b> April 2018–September 2018</p> <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="http://3gm.ellak.gr">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

## Ratle (Co-founder)

October 2017–October 2018

- Bluetooth Signal Denoising with Kalman Filters
- Product tracking inside stores
- Enterprise application for Business Analytics
- Tested at real stores [video]

## TEACHING ASSISTANTSHIP EXPERIENCE

### Undergraduate Teaching Assistant

- Discrete Mathematics (4th Semester) *Spring 2017*
- Programming Techniques (2nd Semester) *Spring 2016*
- Introduction to Computer Programming (1st Semester) *Fall 2016, Fall 2017*

## LANGUAGES

Greek (Native), English (C2), German (B1)

## TECHNICAL SKILLS

**Programming Languages** Python, C/C++, Java, JavaScript/TypeScript, Bash, OCaml, PHP, R, SQL  
**Machine Learning Frameworks** PyTorch, Pyro, Tensorflow Keras, Sklearn, spaCy  
**Data Analysis and Visualization** matplotlib, MATLAB, pandas, Bash  
**Scientific Programming** SAGE, Octave, MATLAB, Scilab, NumPy, SciPy, OpenCV, NetworkX  
**Databases** MySQL, MongoDB, PostgreSQL, Firebase  
**Version Control** Git, Subversion

## HONORS & AWARDS

- Programming Competition *IEEEExtreme 12.0*. Ranked 48th out of 4,000 World-wide (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 American Astronautical Society
- 1st Award at “*Crowdhackathon Fintech #2*” for developing a cashierless system for retail shops to eliminate queues
- 2nd Award at the “*be finnovative 2.0 accelerator*” for developing a cashierless system for retail shops to eliminate queues
- 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

## VOLUNTEERING

- Teaching algorithms courses in National Competition for Informatics Camp
- Google Summer of Code Mentor
- Member of TEDx NTUA 2018 Organizing Committee, IT Team
- Member of Greek Free and Open-Source Software Organization GFOSS-OTA

## REFERENCES AVAILABLE UPON REQUEST

Dimitris Fotakis (Assoc. Professor at NTUA, Thesis Advisor, [fotakis@cs.ntua.gr](mailto:fotakis@cs.ntua.gr))  
 Diomidis Spinellis (Professor at AUEB, ex: Google, ex: GSIS SG, [dds@aueb.gr](mailto:dds@aueb.gr))  
 Nectarios Koziris (Prof. at NTUA, [nkoziris@cslab.ece.ntua.gr](mailto:nkoziris@cslab.ece.ntua.gr))  
 Vasilis Kostakis (Prof. at TalTech, Harvard BKC, P2P Lab, [kostakis@law.harvard.edu](mailto:kostakis@law.harvard.edu))

## HOBBIES

Cycling, Bike Restoration, Competitive Programming, Basketball, Reading, Drama