

Stefanos Georgiou

Contact details: first name 1316 at gmail dot com, sgeorgiou at name at borocard dot com

About me: I am passionate with research, **coding**, integrating new technologies, and automating cumbersome tasks. My research interests lie to Green and Energy-Efficient Computing, Mining Software Repositories, and Machine Learning. I enjoy working on the command-line and especially with Linux systems. I love to create small indepentant componets and tools to facilitate different daily functionalities. On my free time, I enjoy sporting, reading books, and **travelling**.

Education

- 2021-2022** **PostDoctoral, Electrical and Computer Engineering;** Queen's University
Lab name: Software Evolution and Analytics Lab
Lab's head: **Prof. Ying (Jenny) Zou**
- 2016-2021** **PhD, Computer Science;** Athens University of Economics and Business
Thesis title: *Energy and Run-Time Performance Practices in Software Engineering*; **Thesis**
PhD advisors: (Main) **Prof. Diomidis Spinellis**, **Prof. Panos Louridas**, and **Rizos Sakellariou**
- 2013-2015** **MSc, Pervasive Computing and Communications for Sustainable Development (PERCCOM);** Erasmus Mundus Joint Master Degree
ITMO University of Saint-Petersburg (Russia) Thesis title: *Implementating Green IT Approach for Transferring Big Data over Parallel Data Links*; **Thesis**
Lulea University of Technology (Sweden) Semester 3: *Resource Efficient Pervasive Computing Systems and Communications* **Degree**
Lappeenranta University of Technology (Finland) Semester 2: *Smart Software and Services* **Degree**
Unversity of Lorraine (France) Semester 1: *Sustainable Computer Network Engineering* **Degree**
- 2008-2013** **BSc, Networks and Systems Programming;** University of Cyprus
Thesis title: *Implementation and Evaluation of the Biologically – Inspired AnthHoc-Net Routing Protocol in Sensor Network*; **Degree**

Research Publications

- Conference Papers

- **Stefanos Georgiou***, Maria Kechagia, Tushar Sharma, Federica Sarro, and Jenny Zou. Green AI: Do Deep Learning Frameworks Have Different Costs? In 44th International Conference on Software Engineering: Technical Track, ICSE '22. New York, NY, USA, May 2022. Association for Computing Machinery. [[Paper](#)] [[BibTex](#)]
- **Stefanos Georgiou**, Maria Kechagia Panos Louridas, and Diomidis Spinellis. What Are Your Programming Language's Energy-Delay Implications? In 15th International Conference on Mining Software Repositories: Technical Track, MSR '18. New York, NY, USA, May 2018. Association for Computing Machinery. [[Paper](#)] [[BibTex](#)] [[Presentation](#)] [[Data-set](#)]
- **Stefanos Georgiou**, Maria Kechagia, and Diomidis Spinellis. Analyzing Programming Languages' Energy Consumption: An Empirical Study. In PCI 2017: Proceedings of the 21st Pan-Hellenic Conference on Informatics, ACM International Conference Proceeding Series. ACM Press, September 2017. [[Paper](#)] [[BibTex](#)] [[Presentation](#)] [[Data-Set](#)]
- Journal Articles
 - **Stefanos Georgiou**, Dimitris Mitropoulos, and Diomidis Spinellis. Energy-Efficient Computing in a Secure Environment. Submitted in July 2020 for review in ACM Transaction of Computer Systems.
 - **Stefanos Georgiou** and Diomidis Spinellis. Energy-Delay Investigation of Remote Inter-Process Communication Technologies. Accepted for publication in Elsevier Journal of Systems and Software 2019. [[Preprint](#)] [[BibTex](#)]
 - **Stefanos Georgiou**, Stamatia Rizou, and Diomidis Spinellis. Software Development Life Cycle for Energy-Efficiency: Techniques and Tools. Accepted for publication in ACM Computing Surveys 2019. [[Preprint](#)] [[BibTex](#)]

Organization Services

| | |
|--------------------------|--|
| Program Committee | EASE 2022 for the Research Track |
| | ISEC 2022 for the Doctoral Symposium |
| | ESEC/FSE 2021 for the Student Research Competition |
| | ASE 2020 for the International Workshop on Sustainable Software Engineering |
| Reviewer | Journals submitted to Software: Practices and Experience |
| | Journals submitted to ACM Computing Surveys (CSUR) |
| | Research papers submitted to ESEC/FSE |
| Co-reviewer | Conference papers submitted to ICSE-SEIP, MSR, OSS, ICPC, ICCS, SANER, FSE, ASE, ICMSE and SATToSE |

Invited Talks

| | |
|------------------|--|
| Tutorials | <i>How to improve your CI/CD process</i> presented on 5th of July 2019 at BALab of Athens University of Economics and Business in Athens, Greece. Presentation |
| | <i>Travis CI with CV template tutorial</i> presented on 7th of June 2018 at ITMO Univesity of Saint Petersburg for PERCCOM Master students in Saint-Petersburg, Russia. Presentation |

| | |
|-----------------|---|
| Research | <p><i>Saving Energy in Software Development by Making the Right Choices</i> presented on the 4th of March 2022 at Sustainable Software Engineering lecture of TU Delft.</p> <p>Presentation Slides</p> <p><i>What are your programming language's energy-delay implications?</i> presented on the 12th of June 2018 at PERCCOM's Summer School in Lappeenranta, Finland.</p> <p>Proof</p> |
|-----------------|---|

Teaching Experience

| | |
|---|--|
| Having weekly meetings with five PhD students and two Master students to assist and advise them on their research studies (at Queen's University from 2021 to 2023) | |
| Assisting my PhD advisor at Programming II course (Winter Semester of 2016, 2017, and 2018) by giving tutorial and Lab sessions in Java [Repository] | |
| Gave Java lectures and tutorials for the 1st and 2nd Coding Boot Camp in Athens, Greece (Oct. 2017 - May 2018) [Repository] [Proof] | |

Experience from Industry

| | |
|--------------------------|--|
| Feb 2021-current | <p>Back-end developer and DevOps: Boro</p> <p>Coordinating the development of a savings management mobile application.</p> <p>Responsibilities</p> <p>Developing server via NodeJS and MongoDB to host application and manage its clients.</p> <p>Created the CI pipeline of the back-end repository.</p> <p>Manage the AWS hosting of the server.</p> <p>Established all pre-commit hooks to check commits source code quality.</p> |
| Sep 2020-Feb 2021 | <p>Software Developer Greek Free, Open Source Software</p> <p>Developing a privacy-preserving epidemic dosimeter based on contact tracing.</p> <p>Proof Repository</p> <p>Responsibilities</p> <p>Developing Python, Shell, and Ansible scripts on a Raspberry Pi Zero</p> <p>Extented testing for the correct functionality of the device</p> |
| Jan 2019-Apr 2020 | <p>Back-end developer, DevOps, and Integrations: AllCanCode Inc. Greek Branch</p> <p>Supported the product development that facilitates fast web-sites development (by using Blockly) on Desktop that can be exported in smart-phones as well.</p> <p>Responsibilities</p> <p>Development of API end-points in JavaScript (Node.JS) and MongoDB for the server platform (product) and customer products</p> <p>Creation of the CI system for the product (in GitLab) to perform back-end and front-end testing (through Mocha and Cypress frameworks, respectively) and CD to auto-deploy product (for specific push branches) on Google's App Engine (Aurora, Beta, and Production) using the Flex environment</p> <p>Migration of monolithic product to micro-services using Firebase hosting, Cloud Functions, and Cloud Run</p> |

Integration of **Bitrise** system in the product to allow platform users in exporting their Desktop applications to Android and iOS smart-phones through the **Cordova** wrapper

Jan 2016-2019 **Proposals writing: Singular Logic S.A.**

Proposals writing for the European Projects Department. **Proof**

**Responsi-
bilities**

Writing research proposals for Horizon 2020

Technical Experience

Back-End

BASH and SHELL (Often automating cumbersome and time consuming tasks)

NodeJS (Fan of KOA and Express, prefer Mocha-Chai, like to use Native Addons for performance)

Java (Was also teaching it at the Athens University of Economics and Business)

Python (No need to read tutorials, feeling comfy to code anytime)

C (First language to learn and impressed by its performance)

C++ (Second to learn, but as soon as I learned Java I stopped using it)

MongoDB (**Basics**, **Aggregations**, **JavaScript**, and **Performance**)

DevOps

Continuous Integration and Deployment (Big fan of CI/CD Travis, GitLab, and GitHub Actions)

Code Quality (Coveralls, maven-plugins, Style-Checkers, Reports, Prettier, and pre-commit hooks)

Hosting (Firebase, AWS, and Google App Engine)

Mobile CI/CD (Bitrise with Cordova wrapper for mobile apps)

Configuration Management (Ansible because it uses YAML)

Projects

Epidose: A privacy-preserving epidemic dosimeter based on contact tracing **Repository**

Exam Questionnaire Scanner: **Repository**

Measuring Energy Consumption: **Software** and **Hardware** tools

Programming II website: **Repository**

Rosetta Code Experiment: **Repository**

Validate Links: **Repository**

Certificates

Unix Tools: **Data**, **Software**, and **Production Engineering**

**Course Com-
pletion**

MongoDB: **Basics**, **Aggregation**, **JavaScript**, and **Performance**

Loading the data just for you.

Grands, Awards, Achievements, Languages, and Living Abroad

- Grands and awards:

- **Arctic Code Vault Contributor**
- Mentored younger researcher **who won 2nd place** in SRC ESEC/FSE '19.
- Best paper award from the 15th Annual DMST Student Conference (2018)
- Marie Skłodowska-Curie funds, **SENECA** (2016-2019)
- Erasmus Mundus Masters Scholarship, PERCCOM (2013-2015)
- Human Languages:
 - Greek/Hungarian (Native speaker)
 - English (Fluent speaker)
 - Russian/France (Basic knowledge)
- Living Abroad:
 - Born in Gyula, Hungary but grown up in Nicosia, Cyprus.
 - Ate baguettes and drunk wine in Lorraine, France (Fall Semester of 2013)
 - Attended to many sauna parties in Lappeenranta, Finland (Spring Semester of 2014)
 - Fish ice-cold beers from lakes in Lulea, Sweden (Fall Semester of 2014)
 - Drunk vodka and ate borsh in Saint-Petersburg, Russia (Spring Semester of 2015)
 - Teaching in Athens and visiting islands in Greece (Fall Semester of 2016 till now)
 - Biked in Delft, the Netherlands for my PhD secondment (Half month of Sept. 2017)

My Academic Genealogy Tree

Zoom-in for more details _____