# **Stefanos Georgiou**

Current location: Kingston, ON, Canada

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About me: I am passionated 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

PostDoctoral, Electrical and Computer Engineering; Queen's University 2021-current

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 Engineer-

ing; Thesis

PhD advisors: (Main)Prof. Diomidis Spinellis, Prof. Panos Louridas, and Rizos

Sakellariou

2013-2015 MSc, Pervasive Computing and Communications for Sustainable Develop-

ment (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 AntHoc-Net Routing Protocol in Sensor Network; Degree

#### **Research Publications**

Conference Papers

- 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 Com-

EASE 2022 for the Research Track

mittee

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** 

How to improve your CI/CD process presented on 5th of July 2019 at BALab of Athens University of Economics and Business in Athens, Greece. **Presentation** 

Travis CI with CV template tutorial presented on 7th of June 2018 at ITMO University of Saint Petersburg for PERCCOM Master students in Saint-Petersburg, Russia.

**Presentation** 

Research

What are your programming language's energy-delay implications? presented on 12th of June 2018 at PERCCOM's Summer School in Lappeenranta, Finland. **Proof** 

### 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]

### Industrial Experience

#### Sep 2020-current Software Developer Greek Free, Open Source Software

Developing a privacy-preserving epidemic dosimeter based on contact tracing. **Proof Repository** 

Responsibilities Developing Python, Shell, and Ansible scripts on a Raspberry Pi Zero

Extented testing for the correct functionality of the device

Jan 2019-Apr 2020 Back-end developer, DevOps, and Integrations: AllCanCode Inc. Greek Branch

Supported the product development that facilitates fast web-sites development (by using **Blockly**) on Desktop that can be exported in smart-phones as well.

Responsibilities Development of API end-points in JavaScript (Node.JS) and MongoDB for the server platform (product) and customer products

Creation of the CI system for the product (in GitLab) to perform back-end and frontend 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** 

Migration of monolithic product to micro-services using **Firebase hosting**, **Cloud Functions**, and **Cloud Run** 

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

Responsibilities Writing research proposals for Horizon 2020

## **Technical Experience**

Back-End

BASH (Often automating cumbersome and time consuming tasks)

NodeJS (Fan of KOA, 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 confy 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 Ac-

tions)

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

hooks)

Hosting (Firbase, Docker, 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 Repos-

itory

Exam Questionnaire Scanner: Repository

Measuring Energy Consumption: Software and Hardware tools

Programming II website: Repository

Rosetta Code Experiement: Repository

Validate Links: Repository

Certificates Unix Tools: Data, Software, and Production Engineering

Course Com- MongoDB: Basics, Aggregation, JavaScript, Performance

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Loading the data just for you.

## Grands, Awards, Achievements, Languages, and Living Abr

- · 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 Semeseter 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)

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