Panagiotis **Repouskos**

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Education

Department of Informatics and Telecommunications, University of Athens   *Athens, Greece*
MSc in Computer Science   *Current*

Department of Informatics and Telecommunications, University of Athens   *Athens, Greece*
BSc in Computer Science   *June 2018*
- Thesis: "The Dataflow Computational Model and its Evolution",
  Supervisor: Panagiotis Rondogiannis.

Experience

Google Summer of Code 2020   *Athens, Greece*
Mentor   *Summer 2020*
Organization: GeomScale

Google Summer of Code 2019   *Athens, Greece*
Intern   *Summer 2019*
- Project: Sampling Methods for Convex Optimization
- Organization: R Project for Statistical Computing
- Mentors: Dr Vissarion Fisikopoulos, Dr, Elias Tsigaridas
- Goal: Implement in C++ randomized algorithms, which make use of sampling methods to solve linear and semidefinite programs. Last, build an interface to expose the developed methods in R language.
- URL: https://panagiotisrep.github.io/gsoc2019/gsoc2019

Department of Informatics and Telecomunications, University of Athens   *Athens, Greece*
Teaching Assistant, as BSc and MSc Student
- Theory of Computation, 2017-2018, professor Panagiotis Rondogiannis.
- Principles of Programming Languages, 2017-2018, professor Panagiotis Rondogiannis.
- Algorithms and Complexity, 2017-2018, professor Misirlis Nikolaos
- Theory of Computation, 2018-2019, professor Panagiotis Rondogiannis
- Principles of Programming Languages, 2018-2019, professor Panagiotis Rondogiannis
- Laboratory Instructor at Introduction to Programming, 2018-2019, professor Stamatopoulos Panagiotis

Municipality of Elefsina   *Elefsina Greece*
Volunteer Teaching   *Sep. 2018 - May 2019*
- Teaching high school math as a volunteer, in accordance to Municipality of Elefsina's program, aimed in providing gratuitous cram school services.

Self Employed   *Athens, Greece*
Freelance Web Developer
- Build e-shops.
- Private tutoring for high school students (math and programming).

Software

GeomScale
Contributor
GeomScale is an open-source C++ software that offers practical volume computation and sampling in high dimensions.
Git: **https://github.com/GeomScale/volume_approximation**

Contributions:
- Use the Eigen library for linear algebra operations. It offers a speedup in volume computation and sampling of a factor of at least 2, depending on the algorithm.
- Provide support for spectrahedra; previously only polyhedra were supported.
- Implement a randomized algorithm for semidefinite programming.

Presentations

Sampling Methods for Convex Optimization

14th Athens Colloquium On Algorithms And Complexity (ACAC 19)

Publications

Sampling the feasible sets of SDPs and volume approximation

APOSTOLOS CHALKIS, VISSARION FISIKOPOULOS, PANAGIOTIS REPOUSKOS, ELIAS TSIGARIDAS

`https://hal.inria.fr/hal-02572792/document`

Skills

Programming
- Scientific Software, Object Oriented Programming, Logic Programming, Functional Programming
- C/C++, Java, PHP, JavaScript · Advanced
- Maple, R, Prolog, Haskell, Python · Medium
- Spark (Java), FastAPI (Python), Laravel (PHP), MPI, OpenMP

Languages
- Greek · Native
- English · Proficient User
- German, French · Independent User

Sampling Methods for Convex Optimization

Publications