

Panagiotis Repouskos

MSC STUDENT · DEPARTMENT OF INFORMATICS AND TELECOMMUNICATIONS, UNIVERSITY OF ATHENS

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Education

Department of Informatics and Telecommunications, University of Athens

Athens, Greece

MASTER'S DEGREE, COMPUTER SCIENCE

September 2020

- **THESIS TITLE:** 'Sampling methods, Spectrahedra and Convex Optimization',
SUPERVISOR: Ioannis Emiris.

Department of Informatics and Telecommunications, University of Athens

Athens, Greece

BACHELOR'S DEGREE, COMPUTER SCIENCE

June 2018

- **THESIS TITLE:** 'The Dataflow Computational Model and its Evolution',
SUPERVISOR: Panagiotis Rondogiannis.

Experience

Google Summer of Code 2020

Athens, Greece

MENTOR / CONTRIBUTOR

Summer 2020

- **ORGANIZATION:** GeomScale
- **ROLE:** Provide code optimization and documentation. Mainly deal with linear algebra problems, especially polynomial eigenvalue problems.

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 Telecommunications, 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

Self Employed

Athens, Greece

FREELANCE WEB DEVELOPER

- Promotion Pages
- e-shops

Self Employed

Athens, Greece

PRIVATE TUTOR

- Maths for high school students
- Programming for high school students

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)

Athens, Greece

Aug. 2019

Publications

Sampling the feasible sets of SDPs and volume approximation

APOSTOLOS CHALKIS, VISSARION FISIKOPOULOS, PANAGIOTIS REPOUSKOS, ELIAS TSIGARIDAS

ISSAC '20 SIGSAM Communications in Computer Algebra. ACM, 2020. (Distinguished poster award)

ISSAC '20 Poster

July 2020

Volunteer Experience

Municipality of Elefsina

VOLUNTEER TEACHING

- Teaching high school math as a volunteer, in accordance to Municipality of Elefsina's program, aimed in providing gratuitous cram school services.

Elefsina, Greece

Sep. 2018 - May 2019

Skills

Industry Knowledge	Generic Programming			Linear Algebra Software & Libraries		
	Scientific Software			Object Oriented Programming		
	Logic Programming			Parallel Programming		
	Web Development					
Tools & Technologies	C/C++	Java	Python			
	Maple	R	Spark			
	Pthreads	MPI	OpenMP			
	Prolog	Haskell	PHP			
	Javascript	Laravel	Open Cart			
Languages	• Greek · Native					
	• English · Proficient User					
	• German, French · Independent User					