

(301)531-0487

College Park, Maryland

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# Georgios Tsimos

PhD Student in Cryptography

Website

LinkedIn: gtsimos

I am a **Graduate Research Assistant** at the **Electrical Engineering** Department of the **University of Maryland** and a **PhD Student** at the **Maryland Cybersecurity Center (MC2 Lab)**. My PhD advisor is Professor **Charalampos Papamanthou**. I am interested in several aspects of **Applied Cryptography**, some of which include **Consensus**, **Blockchains**, **Private Information Retrieval**, **Vector Commitment Schemes** and more. I am experienced in Protocols for **Byzantine Agreement/Authenticated Broadcast**.

## Ongoing Research Projects:

New techniques for **synchronous Broadcast** (with J. Loss and C. Papamanthou)

and **Efficient Chain validation in Blockchains** (with I. Miers and C. Papamanthou).

Also interested in the Theory of Cryptography, Algorithms and Computational Complexity.

## EDUCATION

### PhD Student in ELECTRICAL ENGINEERING

University of Maryland, College Park

Aug 2019- Present

Advisor: Professor **Charalampos Papamanthou** (at Yale)

**Selected Coursework:** SECURE DISTRIBUTED COMPUTATION (J. Katz), ADVANCED CRYPTOGRAPHY AND HOSTILE GOVERNMENTS (I. Miers), CRYPTOGRAPHY (C. Papamanthou), COMPUTER SECURITY (T. Dumitras), RANDOM PROCESSES IN COMMUNICATIONS AND CONTROLS (B. Babadi), INFORMATION THEORY (P. Narayan)

### Master's of Science in COMPUTER SCIENCE

Athens University of Economics and Business, Greece

Oct 2018- July 2019

GPA: 9.44/10.0 (Honors)

### Bachelor's (4-year Ptychion) in COMPUTER SCIENCE

Athens University of Economics and Business, Greece

Oct 2014 - Sept 2018

GPA: 8.79/10.0 (Honors, Valedict.)

## RESEARCH EXPERIENCE

### Graduate Research Assistant

Maryland Cybersecurity Center (MC2 Lab)

Aug. 2019 — Present

University of Maryland, College Park, MD

- Research Focus 1: Adaptively Secure Consensus Protocols in Synchronous Networks.
- Research Focus 2: Randomized Protocols for Efficient Blockchain Validity Checks.

### Undergraduate/Graduate Research Assistant

Mar. 2017 — Jun. 2019

Advisor: Assistant Prof. **Eugenie Foustoucos**

Athens University of Economics and Business, Greece

- Research Focus 1: Model Theory and Euhrenfeucht-Fraïssé Games of Logic
- Research Focus 2: Languages of Propositional and Mathematical Logic for expressing Complexity Classes

## PUBLICATIONS

G. Tsimos and J. Loss and C. Papamanthou:

"Gossiping For Communication-Efficient Broadcast"

New!

CRYPTO' 2022

G. Tsimos:

Thesis for completion of MS in Computer Science, at AUEB

"A Comparative Research between the relation of various Satisfiability Problems and Complexity Classes"

## HONORS AND AWARDS

### DEAN'S FELLOWSHIP

for the First Year of Ph.D.

Aug. 2019 — Jun. 2020

University of Maryland, College Park, MD

### AWARD IN MEMORY OF MICHALIS MITILINAIOS

2016- 2017

for especially High Performance in the courses "Automata and Complexity", "Logic" and "Computability and Complexity"

## SKILLS

### OS & Tools

Linux, Windows, MacOS, Git

### Programming Languages

Golang, Java, Python (experienced)/ C, C++ , Python, R , Matlab, HTML,CSS (familiar)

### Communication

English (fluent speaker) , Greek (native) , Spanish (basic communication)

## VOLUNTARY ACTIVITIES AND SERVICE TO THE COMMUNITY

Udemy Course: "Go: The Complete Developer's Guide (Golang)"

Summer'21 — present

External Subreviewer for EUROCRYPT21

Fall 2020

## REFERENCES

Associate Professor **Charalampos (Babis) Papamanthou** (at Yale), (Ph.D Advisor):

charalampos.papamanthou@yale.edu

Assistant Professor **Eugenie Foustoucos** (at AUEB), (Master's Advisor, Bachelor's Thesis Advisor):

eugenie@aueb.gr

Assistant Professor **Julian Loss** (at CISP), (Research Collaborator):

lossjulian@gmail.com

Assistant Professor **Ian Miers** (at UMD), (Research Collaborator):

imiers@umd.edu