

# Nikolas Melissaris

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Aarhus University

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## Research Interests

Combinatorics, Graph Theory,  
Privacy preserving Machine Learning, and Secure Multiparty Computation

## Education

(Current) **Aarhus University**

PhD Student

*Advisors: Claudio Orlandi, Peter Scholl*

**Rutgers University**

MSc, Information Technology

GPA: 3.97/4

**School of Applied Mathematics and Physical Sciences,**

**National Technical University of Athens**

BSc and MSc, Applied Mathematics

Majors: Computer Science, Statistics

## Diploma Theses

“The concrete security of practical cryptographic constructions”,  
Advisor: Associate Professor Periklis Papakonstantinou, Rutgers University  
*Survey on the security of cryptographic constructions in the information  
theoretic setting*

“Mathematical Attacks on RSA”  
Advisor: Assistant Professor Petros Stefaneas, NTUA  
*Implementation of attacks on the RSA cryptosystem.*

## Research

**Capital Fund Management**, New York City

Research Intern, Summer 2021

*Performance of clustering techniques on stock returns.*

**MadHive Inc**, New York City

Research Assistant, Summer 2019

*Using cryptography to ensure integrity and detect fraud in AdTech technologies.*

**Computer Security Lab**, University of California at Santa Barbara  
Research Assistant, Summer 2015  
Advisors: Professors Christopher Kruegel and Giovanni Vigna.  
*Armoring Android mobile devices against fake location signals.*

## Teaching

**Computer Science Dept., Aarhus University**

Teaching Assistant, Cryptology, Fall 2022  
Teaching Assistant, Optimization, Spring 2022

**MSIS Dept., Rutgers University**

Teaching Assistant, Information Security, Fall 2020, Spring 2021  
Instructor, Management Information Science, Summer 2020  
Teaching Assistant, Business Data Management, Spring 2020  
Teaching Assistant, Fundamentals of Optimization (Graduate), 2019  
Teaching Assistant, Statistics, 2019

**School of Professional Studies, Columbia University.**

Instructor, Introduction to Programming with C, Summer 2017

**Mathematics Dept., NYC College of Technology**

Instructor, Discrete Structures and Algorithms I, 2016  
Instructor, Quantitative Reasoning, 2017

**Computer Science Dept., Brooklyn College**

Instructor, Intro to Computer Applications, 2016

**Computer Science Dept., Borough of Manhattan Community College**

Instructor, Principles in Information Science and Computing, 2016

## Work Experience

**Linux System Administrator**

*The Graduate Center, CUNY*, New York, 2015-2016  
Supervisors: Gary Kettner, Lihua Wang  
Maintaining (patching, upgrading, monitoring, securing) all the Linux servers of the school, migrations to newer technologies, in addition to threat response.

**Software Engineer**

*Nessos Informatics*, Athens, 2014-2015  
Supervisor: Pantelis Petrogiannakis  
Building web crawlers and scrapers to collect 15 years of basketball statistics from leagues around the world for the critically acclaimed game “World Basketball Manager”.

Awards and Fellowships	<b>Summer Research Award</b> Rutgers University 2019, 2020
Languages and Skills	Greek (native), English (proficient), German (intermediate) Python, R, JavaScript, MATLAB, L <sup>A</sup> T <sub>E</sub> X, Mathematica

## Publications

1. Pei Peng, Nikolas Melissaris, Emina Soljanin, Bill Lee, Anton Maliev, and Huafeng Fan. Straggling for covert message passing on complete graphs. In *57th Annual Allerton Conference on Communication, Control, and Computing, Allerton 2019, Monticello, IL, USA, September 24-27, 2019*, pages 453–459. IEEE, 2019
2. Nikolas Melissaris, Divya Ravi, and Sophia Yakubov. Threshold-Optimal MPC With Friends and Foes. <https://eprint.iacr.org/2022/1526>.

## Manuscripts

1. Carsten Baum, Nikolas Melissaris, Rahul Rachuri, and Peter Scholl. Efficient MPC with Identifiable Abort.
2. Nikolas Melissaris and Antigoni Polychroniadou. Agreeing on the same Neural Network after compressing on different data.