

# Grigorios Moulkiotis

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## EDUCATION

**National and Kapodistrian University of Athens**

2024 - Present

*M.Sc. in Computer Science*

**National and Kapodistrian University of Athens**

2019 - 2024

*B.Sc. in Computer Science*

- Thesis: Enhanced Techniques for Testing x86 and RISC-V CPUs Against Speculation Contracts
- Supervisor: Professor Vasileios Karakostas

## EXPERIENCE

**Software engineer**

June 2024 – Present

*Intracom-Telecom*

- Developed Microservice applications using Spring Boot for telecom services.
- Designed and developed front end applications using React and Angular frameworks.
- Migrated data from OracleDB to MySQL.
- Integrated Identity and Access Management systems.

## RESEARCH

**National and Kapodistrian University of Athens**

*Enhanced Techniques for Testing x86 and RISC-V CPUs Against Speculation Contracts*

- Studied microarchitectural side channel attacks, speculative vulnerabilities and fuzzing using Revizor.
- Inserted timing instead of performance counters to collect traces from side channels.
- Developed instruction cache side channels detection using fuzzing.
- Ported Revizor for RISC-V architectures and integrated security vulnerability detection for the state of art vulnerabilities.

## PROJECTS

**Eclass Penetration testing** | *PHP, JavaScript, Docker*

- Security research in order to find vulnerabilities in eclass platform.
- Implementation of security patches in order to fix the vulnerabilities.

**Systems Programming** | *C, C++, assembly*

- A Linux system tool using pipes and forks to monitor folder changes and notify users of file events.
- LLM benchmark analysis and enchantment using openmkl and AVX.

**Extraction of data using machine learning and data mining techniques** | *Python, scikit-learn, PyTorch*

- During the course of machine learning and data mining I got exposed to data mining and AI/ML methodologies in order to extract data from various sources(text,image,etc).

## TECHNICAL SKILLS

**Languages:** Java, PHP, Python, C/C++, SQL (MySql,OracleDB), JavaScript, HTML/CSS, Assembly(x86,RISC-V)

**Frameworks - Libraries:** Spring Boot, React, Angular, PyTorch, scikit-learn

**Developer Tools:** Git, Docker, VS Code, Visual Studio, IntelliJ

## VOLUNTEERING

Teaching assistant in the following courses:

**Introduction to programming:** 2020

**Computer architecture I:** 2023

## LANGUAGES

**Greek:** Native

**English:** C1