

Stefanos Chaliasos

✉ stefanos@chaliasos.com | 🏠 stefanoschaliasos.github.io | 📱 StefanosChaliasos

Research Interests

My main research interests involve Computer Security, Software Testing, Program Analysis, and Programming Languages.

Education

Ph.D. in Computing Research

IMPERIAL COLLEGE LONDON

London, UK

2021 -

- Academic Advisors: Ben Livshits, Arthur Gervais

M.Sc. in Computer Science (GPA 9.57/10)

NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

Athens, Greece

2019 - 2021

- M.Sc. Thesis: “A Study of Typing-Related Bugs in JVM Compilers”
- Academic Advisors: Alex Delix, Dimitris Mitropoulos

B.S. in Management Science and Technology – Major: Software Engineering and Data Science (GPA 7.8/10)

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS (AUEB)

Athens, Greece

2014 - 2019

- B.S. Thesis: “Mix network implementations in e-voting system”
- Thesis Advisor: Panagiotis Louridas

Professional Appointments

Athens University of Economics and Business (AUEB) – BALAB

RESEARCHER

Athens, Greece

March 2019 - October 2021

Research scientist for the FASTEN European Research Project. I have been working on generating C call graphs for the whole Debian ecosystem using static analysis techniques and providing a framework to enable various analyses to tackle security and risk evaluation problems, license compliance, and change impact analysis. I have also taken part in other research projects in web security, programming languages, and software testing.

GRNET

SOFTWARE ENGINEER

Athens, Greece

February 2018 - February 2019

Software engineer for the PANORAMIX European Research Project. During my time at GRNET, I worked on making an e-voting platform, namely Zeus, modular regarding its cryptosystem. Specifically, I refactored the code base of the platform to support multiple cryptosystems. I also integrated two different mix nets into the platform.

Service

PROGRAM COMMITTEE

POPL Artifacts Principles of Programming Languages – Artifacts: 2023

OOPSLA Artifacts Object-oriented Programming, Systems, Languages, and Applications – Artifacts: 2021

PLDI Artifacts Programming Language Design and Implementation – Artifacts: 2022

OSDI Artifacts USENIX Symposium on Operating Systems Design and Implementation – Artifacts: 2022

ATC Artifacts USENIX Annual Technical Conference – Artifacts: 2022

EXTERNAL REVIEWER

EuroSec European Workshop on Systems Security: 2020,2021

MSR Mining Software Repositories: 2020

FSE Industry Track ESEC/FSE Industry Track: 2021

Teaching

Teaching Assistant

IMPERIAL COLLEGE LONDON

London, UK

Spring 2022

- Spring 2022: Teaching Assistant (TA) for Principles of Distributed Ledgers (Graduate level. Instr. Arthur Gervais)
- Spring 2022: Teaching Assistant (TA) for Decentralised Finance (Graduate level. Instr. Arthur Gervais)

Teaching Assistant

NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

Athens, Greece

Spring 2018 and Spring 2021

- Spring 2018: Lead Teaching Assistant (TA) for Computer Security (Undergraduate and Graduate level. Instr. Dimitris Mitropoulos. Students: 90)
- Spring 2021: Teaching Assistant (TA) for Systems Programming (Undergraduate level. Instr. Mema Roussopoulos. Students: 240)

Teaching Assistant

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

Athens, Greece

Fall 2017 - Spring 2020

- Fall 2017-2018-2019: Lead Teaching Assistant (TA) for Introduction to Computer Science (Undergraduate level. Instr. Dimitris Mitropoulos. Students: 180)
- Spring 2018-2019-2020: Lead Teaching Assistant (TA) for Computer Security (Undergraduate level. Instr. Dimitris Mitropoulos. Students: 20)

Honors & Awards

- 2022 **PLDI 22 Best Artifact Award**, “Finding Typing Compiler Bugs” San Diego, USA
- 2022 **PLDI 22 Distinguished Paper Award**, “Finding Typing Compiler Bugs” San Diego, USA
- 2021-2025 **Doctoral Scholarship Award**, Imperial College London London, UK
- 2021 **ICSE 21 Best Artifact Award**, “Replication Package for Article: Data-Oriented Differential Testing of Object-Relational Mapping Systems” Madrid, Spain

Skills

Programming C/C++, Python, Java, Go, Solidity, Bash, \LaTeX , Javascript, SQL, PHP, Typescript, Scala, WebAssembly

Technologies Ethereum, Kubernetes, Docker, Kafka, Django

Languages Greek (*Native*) English (*Proficient*) French (*Elementary proficiency*)

Publications

PUBLICATIONS

- P1 **Stefanos Chaliasos**, Arthur Gervais, and Ben Livshits. “A Study of Inline Assembly in Solidity Smart Contracts”. In Proceedings of the ACM on Programming Languages, OOPSLA ’22. ACM, December 2022.
- P2 **Stefanos Chaliasos**, Thodoris Sotiropoulos, Diomidis Spinellis, Arthur Gervais, Ben Livshits, and Dimitris Mitropoulos. “Finding Typing Compiler Bugs”. In Proceedings of the 43rd ACM SIGPLAN Conference on Programming Language Design and Implementation (PLDI 2022).
- P3 **Stefanos Chaliasos**, Thodoris Sotiropoulos, Giorgos-Petros Drossos, Charalampos Mitropoulos, Dimitris Mitropoulos, and Diomidis Spinellis. “Well-Typed Programs Can Go Wrong: A Study of Typing-Related Bugs in JVM Compilers”. In Proceedings of the ACM on Programming Languages, OOPSLA ’21. ACM, October 2021.
- P4 Thodoris Sotiropoulos, **Stefanos Chaliasos**, Vaggelis Atlidakis, Dimitris Mitropoulos, and Diomidis Spinellis. “Data-oriented differential testing of object-relational mapping systems”. In 43rd International Conference on Software Engineering, ICSE ’21. 2021.
- P5 Thodoris Sotiropoulos, **Stefanos Chaliasos**, Dimitris Mitropoulos, and Diomidis Spinellis. “A model for detecting faults in build specifications.”. In Proceedings of the ACM on Programming Languages, OOPSLA ’20. ACM, November 2020.
- P6 **Stefanos Chaliasos**, George Metaxopoulos, George Argyros, and Dimitris Mitropoulos. “Mime artist: bypassing whitelisting for the web with JavaScript mimicry attacks.”. In 24th European Symposium on Research in Computer Security, ESORICS ’19, 565–585. September 2019.