

CRISTIAN ASSAIANTE

Curriculum vitae

(last updated: June, 2024)

PERSONAL DATA

NATIONALITY: Italian
EMAIL: assaiante@diag.uniroma1.it
PERSONAL PAGE: cristianassaiante.github.io

EMPLOYMENT

NOV. 2021 - PRESENT	PhD student, ENGINEERING IN COMPUTER SCIENCE <i>Sapienza University of Rome, Italy</i> Advisor: Prof. Leonardo Querzoni
JAN. 2020 - PRESENT	Organizer and Training Coordinator, CYBERCHALLENGE.IT <i>Sapienza University of Rome, Italy</i>
MAR. 2021 - MAY 2021	Training Coordinator and Challenges Author, OLICYBER.IT

EDUCATION

SEP. 2019 - OCT. 2021	M.Sc., ENGINEERING IN COMPUTER SCIENCE (in English) <i>Sapienza University of Rome, Italy</i> Final grade: 110/110 with honors (<i>summa cum laude</i>) Thesis: A Study of the Completeness of Debug Symbols in Optimizing Compilers
SEP. 2016 - JUL. 2019	B.Sc., COMPUTER AND CONTROL ENGINEERING <i>Sapienza University of Rome, Italy</i> Final grade: 110/110 with honors (<i>summa cum laude</i>) Thesis: A Micro-Architectural Red Pill

RESEARCH INTERESTS

My research interests spans over several aspects of compilers, and software and system security, the main focus at the moment is software testing. I currently work on source-level debugging of optimized code, finding bugs in compiler toolchains related to inaccurate debug information generation and testing the effects of optimizations of software debuggability. I am passionate about compilers optimizations, program analysis techniques (sometimes applied to malware analysis), operating systems and micro-architectural attacks.

TEACHING

2024	Adjunct Professor for <i>Sistemi di Calcolo</i> (3CFU module) course (Spring 2024), Sapienza University of Rome.
2023	Adjunct Professor for <i>Sistemi di Calcolo</i> (3CFU module) course (Spring 2023), Sapienza University of Rome.
2022	Teaching Assistant for <i>Sistemi di Calcolo</i> course (Spring 2022), Sapienza University of Rome.

SERVICE

Conferences and Workshops

- 2024 Artifact Evaluation Committee member for [NDSS'25](#) - Network and Distributed System Security Symposium 2025.
- 2022 Shadow Program Committee member for [EuroSys'23](#) - 18th European Conference on Computer Systems.
Artifact Evaluation Committee member for [EuroSys'23](#) - 18th European Conference on Computer Systems.

Journals

- 2023 Reviewer for [Computers & Security](#) (COSE).
Reviewer for [SoftwareX](#) (SOFTX).

PUBLICATIONS

Conferences and Workshops

- 2024 **C. Assaiante**, S. Nicchi, D. C. D'Elia, L. Querzoni. *Evading Userland API Hooking, Again: Novel Attacks and a Principled Defense Method*. To appear In Proceedings of the 21st Conference on Detection of Intrusions and Malware & Vulnerability Assessment (**DIMVA '24**). [CORE23 RANK: C.]
- 2023 **C. Assaiante**, D. C. D'Elia, G. A. Di Luna, L. Querzoni. *Where Did My Variable Go? Poking Holes in Incomplete Debug Information*. In Proceedings of the 28th ACM International Conference on Architectural Support for Programming Languages and Operating Systems (**ASPLOS '23**). [CORE23 RANK: A*.]

HONORS AND AWARDS

- 2024 **finalist** with mhackeroni, DEFCON 32 *CTF Finals*, Las Vegas, USA
- 2023 **winner** with mhackeroni, HACK-A-SAT 4 *CTF Finals*, Las Vegas, USA
finalist with mhackeroni, DEFCON 31 *CTF Finals*, Las Vegas, USA
- 2022 **winner**, BLACKHAT ASIA cybersecurity conference *Student Scholarship*, Singapore
- 2021 **winner**, 42ND IEEE SYMPOSIUM ON SECURITY AND PRIVACY conference *Student Travel Grant Award*, Online
awarded, M.Sc. in Engineering in Computer Science *Honors Program*, Rome, Italy
finalist with mhackeroni, DEFCON 29 *CTF Finals*, Las Vegas, USA
winner with TheRomanXploit, CSAW '21 *Embedded Cybersecurity Challenge Finals*, Online
- 2020 **winner**, 15TH CLUSIT thesis prize to *A Micro-Architectural Red Pill*, Online
winner, BLACKHAT EU cybersecurity conference *Student Scholarship*, Online
finalist with mhackeroni, DEFCON 28 *CTF Finals*, Las Vegas, USA
winner with TheRomanXploit, CSAW '20 *Embedded Cybersecurity Challenge Finals*, Online
- 2019 **5th place** with mhackeroni, DEFCON 27 *CTF Finals*, Las Vegas, USA
awarded, B.Sc. in Computer and Control Engineering *Honors Program*, Rome, Italy
1st place with TheRomanXploit, CSAW '19 *Embedded Cybersecurity Challenge Finals*, Valence, France

FUNDINGS

- 2022 Ph.D. starting grant for the project: Practical Control-Flow Integrity for Software Security

TALKS AND PRESENTATIONS

- 2024 **C. Assaiante**, S. Nicchi, D. C. D'Elia, L. Querzoni. *Evading Userland API Hooking, Again: Novel Attacks and a Principled Defense Method*. Presented at ITASEC '24, Salerno, Italy

LANGUAGES

- ENGLISH: Fluent (Certified: B2)
ITALIAN: Native