

CRISTIAN ASSAIANTE

Curriculum vitae

(last updated: January, 2026)

EMPLOYMENT

NOV. 2024 - NOV. 2026	Research Fellow <i>Sapienza University of Rome, Italy</i>
NOV. 2021 - OCT. 2024	PhD student, ENGINEERING IN COMPUTER SCIENCE <i>Sapienza University of Rome, Italy</i> Advisor: Prof. Leonardo Querzoni
JAN. 2020 - JULY 2023	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

NOV. 2021 - JAN. 2026	Ph.D., ENGINEERING IN COMPUTER SCIENCE <i>Sapienza University of Rome, Italy</i> Thesis: Symbolic Debugging of Optimized Code: Measuring, Testing, Tuning and Enhancing Debug Information Quality
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 and incomplete debug information generation, and testing the effects of optimizations on software debuggability and other technologies that leverage debug symbols (e.g., AutoFDO). 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

- 2025 Artifact Evaluation Committee member for [ACM CCS'25](#) - ACM Conference on Computer and Communications Security.
Artifact Evaluation Committee member for [USENIX Security'25](#) - 34^o USENIX Security Symposium.
Artifact Evaluation Committee member for [NDSS'26](#) - Network and Distributed System Security Symposium 2026.
- 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

- 2025 **C. Assaiante**, S. Di Biasio, S. Kumar, G. A. Di Luna, D. C. D'Elia, L. Querzoni. *Towards Threading the Needle of Debuggable Optimized Binaries*. In Proceedings of the 24th ACM/IEEE International Symposium on Code Generation and Optimization (**CGO '26**). [CORE23 RANK: A.]
- 2024 **C. Assaiante**, S. Nicchi, D. C. D'Elia, L. Querzoni. *Evading Userland API Hooking, Again: Novel Attacks and a Principled Defense Method*. 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 TheRomanXpl0it, 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 TheRomanXpl0it, 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 TheRomanXpl0it, 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