

Doria Samuele

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Personal Profile

Samuele Doria is a PhD student at the University of Padua. He holds a Master's Degree in Cybersecurity and a Bachelor's in Computer Engineering. His research focuses on Android Security, specializing in developing engineering solutions to enhance mobile device security. His work includes the development of tools and methodologies, leveraging static and dynamic analysis techniques. He is passionate about technology and security and enjoys playing CTFs.

Work Experience

University of Padua

PhD Student

Padua, Italy

Nov 2023 - Current

- Research on Software Security, with a focus on Android Security.
- Anticipated graduation date: December 2026

École Polytechnique Fédérale de Lausanne

Research Intern at HexHive

Lausanne, Switzerland

May 2023 - Aug 2023

- Developed a static analysis tool to create fuzzing harnesses for Android native libraries.

University of Calabria

Peer-Tutor for CyberChallenge.it

Cosenza, Italy

Feb 2021 - July 2021

- Peer-tutoring for the [CyberChallenge.it](https://cyberchallenge.it) initiative's participants. I guided them in their first experiences playing CTFs, more specifically in challenges involving Reverse Engineering and Binary Exploitation (pwn).

Education

University of Padua

MSc in CyberSecurity

Padua, Italy

Sept 2021 - Sept 2023

- Graduation score: 110/110 cum laude
- **Thesis:** [Control-Flow Graph Based Path Reconstruction in Android Applications](#)

University of Calabria

Computer Engineering

Cosenza, Italy

Oct 2018 - Sept 2021

- Graduation score: 107/110
- **Thesis:** Binary Exploitation on x86-64 and ARM

University of Calabria

[CyberChallenge.it](https://cyberchallenge.it) Participant

Cosenza, Italy

Feb 2020 - June 2020

- Selected among 20 participants to attend lectures and trainings on CyberSecurity and CTF challenges.

Publications

Matrioska: A User-Centric Defense Against Virtualization-Based Repackaging Malware on Android

Simone Zerbini, **Samuele Doria**, Primal Wijesekera, Serge Egelman, and Eleonora Losiouk

Proceedings of the Annual Computer Security Applications Conference (ACSAC)

Poster: SPECK: From Google Textual Guidelines to Automatic Detection of Android Apps Vulnerabilities

Roberto Rossini, Simeone Pizzi, **Samuele Doria**, Mauro Conti, and Eleonora Losiouk

International Conference on Detection of Intrusions and Malware, and Vulnerability Assessment (DIMVA)

VirtualPatch: Distributing Android Security Patches through Android Virtualization

Simeone Pizzi, **Samuele Doria**, Nicholas Miazzi, and Eleonora Losiouk

Computers & Security, 2025

Hercules Droidot and the Murder on the JNI Express

Luca Di Bartolomeo, Philipp Mao, Yu-Jye Tung, Jessy Ayala, **Samuele Doria**, Paolo Celada, Marcel Busch, Joshua Garcia, Eleonora Losiouk, and Mathias Payer

USENIX Security Symposium, 2025

Projects

SPECK: From Android Textual Guidelines To Automatic Exploitation of Vulnerable

Applications

- Funded by the [Google Research Scholar Program](#) (under the "Security" category) November 2022 - Current
- Project in collaboration with Google, that led to the development of SPECK, a rule-based static analyzer that finds vulnerabilities following Google's security guidelines, and GAPS, a hybrid analysis tool that focuses on the reachability of vulnerable code.

Skills

- Programming** Python, C/C++, Java, HTML/CSS, JavaScript, SQL.
- Miscellaneous** Linux, Shell (Bash/Zsh), LaTeX (Overleaf/R Markdown), Git.
- Soft Skills** Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

Achievements

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| 2025 | Speaker at DEF CON at the Mobile Hacking Community , DEF CON | Las Vegas, USA |
| 2024 | Winner of 5th best Master thesis on CyberSecurity , Clusit | Italy |
| 2023 | "Mille e una lode" Award , Merit-based scholarship awarded to the top 3% students of each degree. | Padova, Italy |
| 2021 | Scholarship , Awarded for merit during my Master's studies | Padova, Italy |
| 2018 | Scholarship , Awarded for merit during my Bachelor studies | Cosenza, Italy |

Interests

- Running** Running helps me clear my mind and focus on nature.
- Gym** I like to regularly train in the gym when I cannot go running.
- Reading** I enjoy reading both technical literature and non-fiction.
- Video Games** I play video games to unwind, but also out of curiosity for their architecture.
- Linux** Since 2017, I have been in love with Linux and use it daily; currently, my distro of choice is Fedora.
- Reverse Engineering** I enjoy dismantling binaries and understanding their inner workings.
- Capture the Flag (CTF)** CTFs sharpen my practical security skills and help me to always learn new things.
- Music** Helps me relax and sometimes focus. I listen to a little bit of everything.

Languages

- Italian** Native proficiency
- English** C2 level: proficient user