Doria Samuele

samueledoria@gmail.com | github.com/samudoria | linkedin.com/in/samuele-doria-b09370197/ | Pubblications

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.

Work Experience

University of Padua *Padua, Italy*

PhD Student *Nov 2023 - Current*

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

École Polytechnique Fédérale de Lausanne *Lausanne, Switzerland*

Research Intern at HexHive *May 2023 - Aug 2023*

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

University of Calabria *Cosenza, Italy*

Peer-Tutor for CyberChallenge.it *Feb 2021 - July 2021*

- Peer-tutoring for the *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 *Padua, Italy*

MSc in CyberSecurity *Sept 2021 - Sept 2023*

- Graduation score: 110/110 cum laude
- **Thesis**: *Control-Flow Graph Based Path Reconstruction in Android Applications*

University of Calabria *Cosenza, Italy*

Computer Engineering *Oct 2018 - Sept 2021*

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

University of Calabria *Cosenza, Italy*

CyberChallenge.it Participant *Feb 2020 - June 2020*

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

Pubblications

Simone Zerbini, Samuele Doria, Primal Wijesekera, Serge Egelman, and Eleonora Losiouk. "Matrioska: A User-Centric Defense Against Virtualization-Based Repackaging Malware on Android." Paper presented at the Annual Computer Security Applications Conference (ACSAC), Honolulu, USA, December 2024.

- Paper on the dynamic detection of Virtualization-Based Repackaging Malware on Android devices.

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.

Languages

Italian	Native proficiency
English	C2 level: proficient user