Nicola Bottura

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Positions & Education

Mar 2025 – Jul 2025	**Visiting PhD Researcher**, University of Twente, Enschede (NL) Topic: Code analysis for vulnerability discovery Supervisor: Prof. Andrea Continella
2022 – Present	**PhD in Engineering in Computer Science**, Sapienza University of Rome Topic: Analysis and Monitoring techniques applied to Prevention and Identification of threats Supervisors: Prof. Daniele Cono D'Elia & Prof. Leonardo Querzoni
Mar 2022 – May 2022	**Research Fellow**, CINI Topic: Dynamic Binary Instrumentation techniques applied to Windows malware
2019 – 2021	**M.Sc. in Cybersecurity**, Sapienza University of Rome
2015 – 2019	**B.Sc. in Computer Science**, University of Modena and Reggio Emilia

Teaching

AY 2023/2024	**Tutor**, Laboratorio di Architetture Software e Sicurezza Informatica, Sapienza
AY 2022/2023	**Tutor**, Laboratorio di Architetture Software e Sicurezza Informatica, Sapienza

Master Students Co-supervised

Yuya Yamada (Nara Institute of Science and Technology)
Master Thesis: API hash deobfuscation method based on hashing process identification using memory access information
Federica Bianchi (Sapienza University of Rome)
Honours Programme: Analysis of evasive malware with program analysis techniques

Publications

[1] *Pfuzzer: Practical, Sound, and Effective Multi-path Analysis of Environment-sensitive Malware with Coverage-guided Fuzzing*
N. Bottura, D.C. D'Elia, L. Querzoni. **IEEE EuroS&P 2025**

[2] *All Right Then, (Don't) Keep Your Secrets: Exposing API Hashing in Malware*
N. Bottura, G. Di Pietro, Y. Yamada, D. C. D'Elia, L. Querzoni. **DIMVA 2025**

Patents

Methods and Systems for Analyzing Environment Sensitive Malware with Coverage-guided Fuzzing
Invetors: D.C. D'Elia, N. Bottura
Patent Numbers: EP4312401, IT202200015966A1

Languages

Italian	Native
English	Fluent

Last updated: May 17, 2025