

Denis Mazzucato

Postdoc

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Education

- 2024–Feb. 2025 **Postdoc**, *Carnegie Mellon University*, Pittsburgh, PA (USA)
Six months Postdoc position at CMU (& visiting NASA) with Corina Pasareanu
- 2020–Dec. 2024 **Ph.D.**, *INRIA & École Normale Supérieure* | *PSL*, Paris (FR), supervised by Caterina Urban
Static Analysis by Abstract Interpretation of Quantitative Program Properties
- 2015–Sep. 2020 **Master and Bachelor**, *University of Padua*, Padua (IT), magna cum laude 110/110
Computer Science, Dipartimento di Matematica, Università degli Studi di Padova

Experiences and Awards

- October 2024 **Radhia Cousot Award**, *SAS 2024*, Pasadena (USA), “Quantitative Static Timing Analysis”
- Spring 2024 **Fundings Award**, *Automated Reasoning Amazon Research Award*, Amazon
“Proving the Absence of Timing Side Channels in Cryptographic Applications” with Corina Pasareanu
- August 2023 **Summer School**, *Summer School Marktoberdorf*, Marktoberdorf (DE)
Scientific foundations and technologies for improving the quality and security of software
- Summer 2022 **Research intern**, *Amazon*, Prime Video, London (UK)
Six months internship project in Amazon Prime Video with Franco Raimondi and Bor-Yuh Evan Chang
- Fall 2020 **Exchange Program**, *Vrije Universiteit*, Amsterdam (NL)
Six months student exchange program
- Summer 2018 **Developer**, *THRON*, Piazzola sul Brenta, Padua (IT)
Quality Assurance, three months internship

Programming languages

Fluent Python, Scala, LaTeX
Known Assembly, Agda, C, C++, Haskell, Java, Lean, OCaml

Spoken languages

Fluent English, Italian
Known French, Dutch

Work Interest

Formal Verification, Security, Programming Languages, Software Development

Research Service

- Speaker SAS 2021/22/24, NFM 2024, CSV 2023, Amazon 2022, MRG Imperial College London 2022, Antique Research Team 2021/22/23
- Sub-Reviewer CSV 2024, TACAS 2023, CAV 2021
- Artifact Eval. PLDI 2024, ECOOP 2024, TACAS 2023/24, CAV 2023, SAS 2022/23
- Teaching Asst. *Python Bootcamp* at the CRI institute (42h – 2021)
- Teacher *Research Project* at Master AIRE of Digital Sciences at Université Paris Cité (21h – 2023)

Publications

- SAS 2024 **Quantitative Static Timing Analysis**, hal.science/hal-04669723
[Denis Mazzucato](#), Marco Campion, and Caterina Urban; Winner of the *Radhia Cousot Award*
- NFM 2024 **Quantitative Input Usage Static Analysis**, doi.org/10.1007/978-3-031-60698-4_5
[Denis Mazzucato](#), Marco Campion, and Caterina Urban
- SAS 2021 **Reduced Products of Abstract Domains for Fairness Certification of Neural Networks**, doi.org/10.1007/978-3-030-88806-0_15
[Denis Mazzucato](#) and Caterina Urban