

# Denis Mazzucato

*Ph.D. Student*

✉ [dmazzuca@andrew.cmu.edu](mailto:dmazzuca@andrew.cmu.edu)  
🌐 [denismazzucato.github.io](https://denismazzucato.github.io)  
in [denis-mazzucato](#)

## Education

- 2024–Feb. 2025 **Postdoc**, *Carnegie Mellon University & NASA*, Pittsburgh (PA) & California (USA)  
Six months Postdoc position at CMU & 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

- 2024 **Fundings Award**, *Automated Reasoning Amazon Research Award*, Amazon  
“Proving the Absence of Timing Side Channels in Cryptographic Applications” with Corina Pasareanu.
- 2023 **Summer School**, *Summer School Marktoberdorf*, Marktoberdorf (DE)  
Scientific foundations and technologies for improving the quality and security of software.
- 2022 **Research intern**, *Amazon*, Prime Video, London (UK)  
Six months internship project in Amazon Prime Video as a research intern.
- 2019–2020 **Exchange Program**, *Vrije Universiteit*, Amsterdam (NL)  
Six months exchange program at the VU in Amsterdam.
- 2018 **Developer**, *THRON*, Piazzola sul Brenta, Padua (IT)  
Quality Assurance, three months internship.

## Interest

Static Analysis, Abstract Interpretation, Verification, Security, Formal Methods, Theorem Provers

## 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
- Student Vol. ETAPS 2023, SPLASH 2022/23, CAV 2021
- Teaching Asst. *Python Bootcamp* at the CRI institute (2021)
- Teacher *Research Project* at Master AIRE of Digital Sciences at Université Paris Cité (2023)

## Publications

- SAS 2024 **Quantitative Static Timing Analysis**, <https://hal.science/hal-04669723>  
[Denis Mazzucato](#), Marco Campion, and Caterina Urban
- NFM 2024 **Quantitative Input Usage Static Analysis**,  
[https://doi.org/10.1007/978-3-031-60698-4\\_5](https://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**,  
[https://doi.org/10.1007/978-3-030-88806-0\\_15](https://doi.org/10.1007/978-3-030-88806-0_15)  
[Denis Mazzucato](#) and Caterina Urban