Denis Mazzucato

Ph.D. Student

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denismazzucato.github.io

Education

2020–2024 **Ph.D.**, *ANTIQUE, Inria & DI/ENS*, Paris (FR), École Normale Supérieure | Université PSL.
"Static Analysis by Abstract Interpretation of Machine-Learned Software"

2018–2020 **Master**, *University of Padua*, Padua (IT), magna cum laude.
Computer Science, Dipartimento di Matematica, Università degli Studi di Padova

2015–2018 **Bachelor**, *University of Padua*, Padua (IT).
Computer Science, Dipartimento di Matematica, Università degli Studi di Padova

Experience

2022 **Research intern**, *Amazon*, London (UK), Prime Video.
Six months internship project in Amazon as a research intern.

2019–2020 **Erasmus**, *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 stage.

Programming languages

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

Spoken languages

Fluent English, Italian
Known French, Dutch

Interest

Static Program Analysis, Formal Verification and Validation, Formal methods, Functional Languages, Compilers, Programming Languages, Theorem Provers, Machine Learning, Data science.

Publications

SAS 2021 **Reduced Products of Abstract Domains for Fairness Certification of Neural Networks**, *Denis Mazzucato and Caterina Urban*, SAS 2021, `doi.org/10.1007/978-3-030-88806-0_15`.

Projects

Full overview of my projects in my Github, `https://github.com/denismazzucato`

Haskell **wstat**, *Static Analyzer by Abstract Interpretation*, `github.com/parof/wstat`.
For the final evaluation of the *Software Verification* course taught by *Prof. Francesco Ranzato*.

Lean **Noninterference Flow**, `github.com/denismazzucato/noninterference-lean`.
This was a project related to the *Logical Verification* course taught by *Prof. Jasmin Blanchette* at the VU.

MCS Thesis **Solving systems of fixpoint equations: an algorithmic perspective**, 2020.
Thesis produced under the supervision of *Prof. Paolo Baldan* and *Ph.D. Tommaso Padoan*.