Denis Mazzucato
Ph.D. Student

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Education

2020–2023	**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

Experience

Erasmus

2019–2020	**Vrije Universiteit**, *Amsterdam (NL)*, Science Department. Six months exchange program at the VU university in Amsterdam.

Stage

2018	**Developer**, *THRON*, Piazzola sul Brenta, Padua (IT). Quality Assurance, 320 hours in three months.

Miscellaneous

2016–2020	**Waiter**, *Antica Trattoria Ballotta*, Torreglia (PD). Restaurant Sommelier, more than 4000 hours

Languages

Italian	Mother Tongue	*First Language*
English	C1 (7 IELTS)	*IELTS May 2019*
Dutch	A1	*VU-NT2 October 2019*

CS hard-skills

Haskell, Agda, Lean, C, C++, Java, Python.

Interest

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

Projects - full overview in the Github repo

Haskell	**wstat**, *Static Analyzer*, github.com/parof/wstat. This project is a *Static Analyzer* for a simple academic imperative language, this project was built for the final evaluation of the *Software Verification* course taught by *Prof. Francesco Ranzato*. It relies on abstract interpretation and run a sound analysis. wstat analyzes a source program code and infers sound linear invariants. A full specification of this project could be found in the Github repo.
MCS Thesis	**Solving systems of fixpoint equations: an algorithmic perspective**, *Software verification*. Thesis produced under the supervision of *Prof. Paolo Baldan* and *Postdoc Tommaso Padoan*. The work can be found in my github page. Roughly speaking, it talks about systems of fixpoint equations and their solution characterized as a parity game. We provided a local algorithm to solve verification problem associated.