Xavier Denis

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Education

2020-   Université Paris-Saclay — Doctoral Candidate *Deductive verification of Rust programs.*
         I am exploring the theoretical and applied aspects of Rust software verification. As part of
         this work I develop CREUSOT, a deductive verifier for Rust capable of efficient verification.

2018-2020   Université Paris-Diderot — MSc in Computer Science
            Foundations of Proof Systems, Proof Assistants, Functional Programming and Type Systems

2012-2012   McGill University — BSc in Computer Science

Submitted Publications

[1]   Anonymous. "Creusot: A foundry for the deductive verification of Rust programs". In: *Proceedings of the ACM on Programming Language Design and Implementation* (2022). Submitted to PLDI 2022.

[2]   Anonymous. "RustHornBelt: A Semantic Foundation for Functional Verification of Rust Programs with Unsafe Code". In: *Proceedings of the ACM on Programming Language Design and Implementation* (2022). Submitted to PLDI 2022.

Work Experience

2015-2018   Shopify — Production Engineer
            Promoted to Senior Production Engineer in 2018. Responsible for core infrastructure, core
            contributor to rearchitecture to a multi-datacenter platform.

Projects

2020-   CREUSOT — Implemented as part of my thesis, CREUSOT translates Rust programs to the Why3
         verification platform. It supports a wide portion of Rust's features and integrates a custom specification language for reasoning.