

Bastien Rousseau

PhD Student
Computer Science

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Education

- Sep 2022 – **PhD - Computer Science**, Aarhus University - GSNS, Denmark
Today
- Sep 2021 – **Pre-doctorate internships - CS**, École Normale Supérieure Rennes, France
Sep 2022 Optional year between the first and second year of master dedicated to research internships
- Aug 2020 – **Master & Magistere - CS**, École Normale Supérieure Rennes, France
Today Highly selective school providing a diploma equivalent to a master's degree
- Jan 2018 – **Bachelor - CS and Mathematics**, Université Nice-Sophia Antipolis, France
Aug 2020 Double degree program providing 2 bachelor's degrees, in CS and in math (obtained with merit)

Professional Experience

- Jan 2022 – **Research Internship**, Aarhus University, Denmark
Jun 2022 Internship in Logic and Semantic Team on a topic related to Cerise, a program logic to reason on capability machine based on CHERI architecture. Improvement of the model by adding the concurrency.
- Sep 2021 – **Research Internship**, LIP Laboratory Lyon, France
Dec 2021 Internship with CASH Team on a topic related to the project VELLVM, a formal semantic of LLVM. Design a Domain-Specific Language with its semantic, which combine LLVM control-flow graphs and discharge the well-formedness of the labels.
- May 2021 – **Research Internship**, CEA Paris-Saclay, France
Aug 2021 Internship with LIST Team on a topic related to static Analysis of cryptographic code at binary level. Improvement of state-of-the-art work of constant-time analysis at binary level to allow it to scale.
- Jul 2019 – **Internship**, I3S Sophia-Antipolis, France
Aug 2019 Internship with C&A group. Development of a software for interactive visualization of graphs in Java, as part of a work about TSP solving with constraint programming. Tool for internal use.

Projects

- Sep 2020 – **Regular type inference in OCaml interpreter**, *Projet Master 1*
May 2021 Integration of a verification tool in the OCaml interpreter. More precisely, work about the transformation of OCaml ordered pattern-matching into an unordered rewriting system.
- Oct 2020 – **VSL+ Compiler**, *Projet Master 1*
Dec 2021 Creation of a compiler with OCaml from VSL+ (Very Simple Language Extended) into LLVM IR, as part as the M1 compilation course.

Computer Skills

- Coq Good
- C Good
- Java Notions
- OCaml Good
- Python Good
- Bash Notions

Languages

- French Native
- German A2
- English C1 (TOIEC: 875)
- Danish B1