Enzo Crance

PhD researcher in Computer Science

🌐 ecrance.net   ✉ enzo.crance@inria.fr   🇫🇷 French citizenship

Professional experience

PhD researcher in Computer Science – Industrial PhD
Mitsubishi Electric R&D Centre Europe (MERCE), Inria

📅 November 2020 – November 2023   📍 Nantes, France

Subject: "Proof automation and dependent types: automation of reasoning in interactive proof assistants"

- Building working knowledge about type theory
- Development of Trakt, a goal preprocessing plugin for Coq, to be used before proof automation tactics
- Presentation of my work to the research team and in various conferences

Publications and presentations
- "*Trakt : uniformiser les types pour automatiser les preuves*" (JFLA 2022)
- "Trakt: a generic preprocessing tactic for theory-based proof automation" (Coq Workshop 2022)
- "Compositional pre-processing for automated reasoning in dependent type theory" (CPP 2023)

References: Assia Mahboubi (Inria Gallinette), Denis Cousineau (MERCE)

`Coq` `Type theory` `Metaprogramming` `λProlog`

Lecturer — Constraint programming (postgraduate)
Computer Science department at INSA Rennes

📅 Winter 2023 (*~30h*)   📍 Rennes, France

Constraint satisfaction problem solving with Eclipse Prolog (Master 1 course)
Lectures and practical sessions

Reference: Pascal Garcia (INSA Rennes)

`Prolog` `Teaching`

Teaching assistant — Advanced algorithms (undergraduate)
Computer Science department at IUT Nantes

📅 Autumn 2021 (*~30h*)   📍 Nantes, France

Implementation of hash tables, binary and balanced trees, string algorithms
Practical sessions

Reference: Arnaud Lanoix (IUT Nantes)

`Java` `Teaching`

Research intern
Inria

📅 Summer 2018 (*8 weeks*)   📍 Rennes, France

- Development of the new generator for the OCaml Weekly News
- Implementation of a generator building an interpreter for a programming language from a description of its operational semantics (Necro ML)
- Building knowledge about the foundations of functional programming
- Application of advanced features of the OCaml language

Reference: Alan Schmitt (Inria Epicure)

`OCaml` `λ-calculus` `DSL` `Compilers`

Looking for...

Geographical area & availability
Europe, first quarter of 2024

Professional sector
Applied sciences

Preferred core tasks
- Back-end programming
- Functional programming
- High performance computing

Working conditions
Remote work appreciated

Higher studies

Research Master's degree (CS)
Rennes 1 University

📅 2019 – 2020

📍 Rennes, France

Engineering degree (CS)
INSA Rennes

📅 2015 – 2020

📍 Rennes, France

Languages

French	Native
English	C1 level

Skills

Software
- Familiar with macOS and Linux
- LaTeX, Keynote

Research
- writing technical documents
- communication about results
- outreach and pedagogy
- able to learn autonomously

Human
- ability to adapt and socialise
- eager to learn, diligent work