Rémi Morvan

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Awards

🏆 **Distinguished Paper Award** at PODS '25 for *Minimization of Conjunctive Regular Path Queries.*

🏆 **Selected Paper** at ICDT '23 for *Approximation and Semantic Tree-width of Conjunctive Regular Path Queries.*

Tech Stack

- 🐍 Python
- 🐫 OCaml
- © C
- 🐫 Perl
- SQL SQL
- JavaScript & TypeScript
- HTML HTML & CSS
- TEX LaTeX
- t Typst

Languages

French: mother tongue.

English: mastery (level C2, Cambridge Advanced).

Soft Skills

Problem solving

Information synthesis

Teamwork

Communication

Professional Experience

since Oct. 2025 · **Freelance**
Software & Research Engineer
- Commissionned by the CNRS to develop *LaTeXML* ○. `Perl` `TeX` `XML`

since Dec. 2025 · **Lycée Montaigne** (Bordeaux)
Oral Examiner in Computer Science

Sept. 2021 – Aug. 2025 · **LaBRI, Université de Bordeaux**
Ph.D. Researcher
- Research projects in **database theory** (graph database query optimization) and **automata theory** (model-checking of infinite structures). 6 publications and 24 seminars. `query optimization`
- **Main organiser** and founder of a **three-day workshop** *ATLAS '24* 🔗. Member of the organising committee of several conferences. `event organization`
- **Supervisor** of two interns. `student supervision`

Sept. 2021 – Aug. 2025 · **Université de Bordeaux & Enseirb-Matmeca**
Teacher
240 hours of teaching in Bachelor's and Master's programmes. Topics: **programming** (C & JavaScript), **machine learning, databases**, automata & logic.

Sept. 2020 – June 2021 · **Lycée Saint-Louis** (Paris)
Oral Examiner in Mathematics

Education

Sept. 2021 – Aug. 2025 · **Université de Bordeaux**
Ph.D. in Computer Science 📕
Title: *"Homomorphism Problems in Graph Databases and Automatic Structures"*. Supervised by Diego Figueira and Nathanaël Fijalkow (LaBRI, CNRS).

Sept. 2017 – Aug. 2021 · **École Normale Supérieure Paris-Saclay**
Master's in Mathematics and Computer Science
- ENS Paris-Saclay diploma (civil-servant student) · 2021
- **Parisian Master of Computer Science** · *Université Paris-Cité*, 2021
- **"Agrégation" of Mathematics** & Master's of Higher Education in Mathematics · *Université Paris-Saclay*, 2020

Software Projects

since May 2024 · **Pysemigroup 2.0** ○
Collaborative database project dedicated to **visualizing** and comparing research results in *automata theory*. I mostly dealt with **knowledge representation**. Project leader: Charles Paperman. `Python` `Pydantic` `FastAPI`

since Feb. 2022 · **Knowledge-Clustering** ○
LaTeX command-line writing assistance tool. **Creator and main developer**.
`Python` `Clustering` `Natural Language Processing` `LaTeX`

Associative & Electoral Engagement

Dec. 2023 – Aug. 2025 · **LaBRI**
Member of LaBRI's Scientific Council

Dec. 2021 – Nov. 2022 · **AFoDIB**
President `event organization` `communication` `funding application`
Association of Computer Science Ph.D. Students in Bordeaux. I was also **secretary** *(Dec. 2020 – Nov. 2021)* and **member of the board** *(Dec. 2022 – Nov. 2023)*.