Clément ROUVROY

Computer Sciences student, Normalien

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I'm a master student in computer sciences at Ecole normale supérieure (Paris), one of France's most selective school. I have conducted research at INRIA, ENS, and NTU (Singapore). I'm intereseted in how ML-based algorithms can improve performances in systems, motivated by experience in Query Optimization.
Updated: 03/31/2025

Education

Ecole normale supérieure

2024 - 2026 Paris, France

M.Sc. in Computer Science

Result: On-going, best grade in Deep Learning.

Ecole normale supérieure

2023 - 2024 Paris, France

B.Sc. in Computer Science

Result: 4.0/4.0 GPA, First class honour.

Publications & Works

Unpublished

Report: On the enumeration of answers to acyclic conjunctive queries with self-joins, **Internship Report**, C. ROUVROY (2025), PDF

Enumerating with constant delay and linear preprocessing acyclic CQs with self-joins, **Talk** at LIRMM's Boreal Seminar, C. ROUVROY (2024), PDF

Research Experience

Research Intern
Nanyang Technological University (MLXDB) - Gao Cong
2025 Feb. — 2025 Jul. Singapore, Singapore

- Worked on Reinforcement Learning for Index Recommendation in HTAP databases.
- Supervised by Bo An, working with Gao Cong and Jiachen Shi.

Research Intern
ENS Paris (Valda Team) - Luc Segoufin
2024 Sep. — 2025 Jan. Paris, France

- Found hardness conditions for enumeration of cojunctive queries with self-joins.

Research summer Intern
INRIA Montpellier (BOREAL Team) - Nofar Carmeli David Carral
2024 Jun. — 2024 Aug. Montpellier, France

- Found a sufficient condition for enumeration of cojunctive queries with self-joins.

Objective

Seeking to pursue research and development in the private sector, either in ML-based optimization or in AI.

Projects

Diffusion models *GitHub*

Reinforcement Learning for Autonomous Cars *GitHub*

Graph Neural Network - Fake News Detection (MVA) *GitHub*

CPU *Blog*

PureScript Lexer, Parser, Compiler

Git *GitHub*

Expertise

Languages and tools: Python, Pytorch, Numpy, C, C++, Go, OCaml, SQL

Skills: Research, Mathematics, AI, Formal Languages and Complexity, Databases, Optimizations, Algorithms

Languages: French, English

Coursework

Theory (Advanced Complexity, Formal languages and complexity, Algebra) from ENS and MPRI

AI (Computer Vision, Deep Learning, Statistical Learning) from ENS, MVA and IASD

Database (Database Theory) from ENS

Coding (Compilation, OS, Numerical System) from ENS

Algorithm (Algorithm, Convex Optimization, Combinatorial Optimization) from ENS