

Laureline PINAULT

PhD in Computer Science

239 avenue Jean Jaurès
69007 Lyon, France
✉ laureline.pinault@ens-lyon.fr

Currently **PhD**, *LIP, Ecole Normale Supérieure de Lyon*, Subject: Automata Algorithms based on Coinduction Methods, Supervisors: Denis KUPERBERG and Damien POUS.

Formation

- 2016 – 2017 **Master 2**, *Theoretical Computer Science*, Ecole Normale Supérieure de Lyon.
- Courses: Monadic Second Order Logic, Automata, Expressivity and Decidability; Coinductive Methods in Computer Science; Program Analysis, Safety Program Verification; Quantum Information and Computation; Network Algorithms for Molecular Biology; Advanced Compilers.
 - Research Schools : Scientific methodology and performance evaluation for computer scientists; Molecular programming: from theory to wet lab nano-scale computation; GDR IM young researchers school.
 - Project: A static analyser in Caml.
 - Diploma : Master of Science degree in Computer Science
- 2015 – 2016 **Agrégation of Mathematics**, *Option Computer Science*, Ecole Normale Supérieure de Lyon, (rank: 68th).
- 2014 – 2015 **Master 1**, *Theoretical Computer Science*, Ecole Normale Supérieure de Lyon.
- Courses: Proofs and programs; Program analysis, semantics and verification; Compilers; Optimisation and approximation; Computational Geometry and Digital Images; Cryptography and Security, Parallel Algorithms; Distributed systems; Computational Complexity; English.
 - Research Schools : Data Structures for Big Data; Static Analysis and Compilation.
 - Project: TriComp, a software that “compiles” the instructions to knit a piece of clothes from a high level description, see <https://tricompile.github.io/> (3 months).
- 2013 – 2014 **License 3**, *Theoretical Computer Science*, Ecole Normale Supérieure de Lyon.
- Courses: Mathematical logics, Programming languages theory, Computability, Algorithmics, Probability, Computer Architecture, Competitive programming (ACM), English.
 - Projects: Maximal matchings problem in Java (7 weeks); Steiner tree problem in C (6 weeks); Sudoku solver in MIPS (6 weeks).
 - Diploma: Bachelor of Science in Computer Science
- 2011 – 2013 **Classe Préparatoire**, *Math-Physics (MPSI and MP*)*, Lycée Hoche, Versailles.
Result: Admission to Ecole Normale Supérieure de Lyon (rank: 34th)
- 2008 – 2011 **Lycée**, *Scientific section*, Institut Notre Dame, Saint Germain en Laye.
Diploma : Baccalauréat, Mention Très Bien

Research Internship

- Spring 2017 **M2 internship (20 weeks)**, supervised by Denis KUPERBERG and Damien POUS, Ecole Normale Supérieure de Lyon.
- Subject: Coinduction based algorithm to decide Büchi automata equivalence
 - Wrote a report
 - Gave a presentation
- Summer 2015 **M1 internship (12 weeks)**, supervised by Lluis BELANCHE, Universitat Politècnica de Catalunya (UPC), Barcelone.
- Subject: Modelling with Kernels based on Gower Similarity
 - Wrote a report
 - Gave a presentation

Summer 2014 **Bachelor internship (6 weeks)**, supervised by Nathanaël FIJALKOW and Olivier SERRE, LIAFA, Paris.

- Subject: Alternating Qualitative Parity Tree Automata
- Wrote a report
- Gave a presentation
- Attended a summer school about logic, games and automata (1st EATCS young researchers school)

Teaching

currently **Teaching Assistant**, *Ecole Normale Supérieure de Lyon*, Introduction to Computer science for physicists (M2); Mathematical Logics (Bachelor); System Verification (M1).

2016 – 2017 **Oral examination**, *Lycée du Parc, Lyon*, Oral exercises to postsecondary students to train them for competitive exams.

2009 – 2013 **Private teacher**, *Level from elementary school to high school*.

Skills

Computer Science

Languages C, C++ : advanced notions.
Bash, OCaml : beginner use.
Coq, Java, Erlang and MPI : introduction.

OS Use of Linux and Windows

Others Latex

Languages

French Mother tongue

English Fluent, CLES Level B2

Interests

Reading, Board Games, Juggling, Travelling, Swimming