

Roxane Van den Bossche

Date of birth 2002.03.10 **Nationality** French **Email** roxane.vdb@free.fr

Current specialities: **Modal logic, Logic, Model checking, Automata, Games**

Interests in cognitive sciences: **Behaviour, Social models, Decision, Ethology**

Research experience

2023 - 5-month internship with Christel Baier, Jakob Piribauer, Sascha Klüppelholz at the Chair of Algebraic and Logical Foundations of Computer Science at the Technische Universität Dresden: *Defining and studying Backward Responsibility in Counterexamples from Model Checking.*

2022 - 2-month internship with Andreas Herzig and Jonathan Ben-Naim at the Institut de Recherche en Informatique de Toulouse (IRIT): *Distance-based belief revision for modal logic.*

2021 - Personal scientific project for the competitive exams (TIPE): *Optimal repartition of roads in San Paulo.*

2018 - Personal bibliographic project for the baccalauréat (TPE): *A deep learning cortical implant to restaure vision*

Teaching experience

2023 - Student math club at CogMaster

2023 - Teaching french in Germany

2022 - *Informatique débranchée* (Intervention in primary school to present computer science without using any computer): *Building logic gates with dominos*

Education

2023 - present - Interface year at the Cogmaster, Master of cognitive science at École Normale Supérieure de Paris

Courses followed at CogMaster:

Neuroeconomics, Behavioral public policies, Comparative cognition, Introduction to neuroscience, Neuroimaging, Introduction to modeling, Introduction to evolutionary social sciences

2022 - present - *Parisian Master for Research in Computer Science* (MPRI)

2021 - present - École Normale Supérieure of Paris-Saclay, Department of Computer science.

Courses followed at MPRI:

Game theory, Logic, Descriptive logic, Linear Temporal Logic, Algebra, Integration and Probabilities, Categories, Complexity theory (advanced), Lambda-calculus, Formal languages and Automata, Tree-automata, Algorithmic (advanced), Algorithmic on graphs, Semantics, Programmation (basic), Initiation to research

2019 - 2021 - Preparatory class for the competitive entrance exam to Grandes École in Mathematics, Physics and Ingeniering (first year, MPSI) and Mathematics and Physics (second year, MP) at lycée Pierre de Fermat (Toulouse). Bachelor 1 and 2 of Mathematics and Physics.

2019 - Baccalauréat and Abitur at lycée Saint Sernin (Toulouse)

Technical skills & Languages

Programming languages: oCaml, Python, Scala, C, Lisp, Go, Assembler, LaTeX, Coq

French Native

English C1 (CAE)

German C1 (Abitur)

Spanish A1

Hobbies

Writing short stories, Piano, Judo, Reading, Drawing, Vulgarisation