

Clémence CHANAVAT

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chanavat.site

PROFILE

I am a young graduate student seeking a PhD in category theory and functional programming.

My research interests include fundamental questions in computer science and how the tools developed can be used to solve more applied questions.

COURSEWORK

Mathematics

Logic, analysis, algebra, category theory, linear algebra, ...

Computer science

IA, data science, functional programming, theoretical computer science

Physics

Classical mechanics, electromagnetism, thermodynamics

SOFTWARE SKILLS

Python, C, C++, Java

Lean, Coq

Git

LaTeX

SOFT SKILLS

Teaching & communication

Teamwork

Time management

Planning

Rigor

LANGUAGE

French (native)

English

HOBBIES

Fictional and scientific writing

Climbing

Philosophy

Chess

EDUCATION

2021 - 2022 - MASTER'S DEGREE IN MATH AND LOGIC - UNIVERSITY OF PARIS - FRANCE

Category theory, set and model theory, proof theory.

2020 - 2021 - MASTER'S DEGREE IN MATH - UNIVERSITY OF LILLE - FRANCE

Functional analysis and advanced probabilities. Granted with honors.

2018 - 2021 - MASTER OF SCIENCE (MSc) - ECOLE CENTRALE LILLE - FRANCE

General engineering with emphasis on data science and AI. Graduation in 2022.

2018 - 2019 - BACHELOR'S DEGREE IN MATH - UNIVERSITY OF LILLE - FRANCE

Algebra, analysis and topology courses. Granted with high honors.

2015 - 2018 - CPGE MATHS/PHYSICS - LYCÉE BLAISE PASCAL - CLERMONT-FERRAND - FRANCE

Intensive classes in maths, physics and informatics for three years after high school graduation.

WORK AND VOLUNTEER EXPERIENCES

AUGUST - DECEMBER 2022 | VISITING RESEARCHER | CIIRC | PRAGUE - CZECH REPUBLIC

Formalized the results of my previous thesis on Cubical Type Theory using the proof assistant Lean.

APRIL - AUGUST 2022 | RESEARCHER IN MATH | INRIA | PARIS - FRANCE

Worked on Cubical Type Theory, a framework to do constructive mathematics in the context of homotopy type theory. Internship.

APRIL - AUGUST 2021 | RESEARCHER IN CS | CIIRC | PRAGUE - CZECH REPUBLIC

Developed new computational tools to investigate an open problem in mathematics. Internship.

JULY - AUGUST 2020 | MATH WEB DEVELOPER | KWYK | PARIS - FRANCE

Developed and coded math exercises in Python for educational startup Kwyk.

SEPTEMBER 2019 - JUNE 2020 | TUTOR OF A MATH LESSONS | ÉCOLE CENTRALE LILLE | LILLE - FRANCE

Taught of weekly lessons in mathematics to more than twenty international students, to help them catch up on French prerequisites to college mathematics. Volunteer experience.