

Joël Felderhoff

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Education

École Normale Supérieure de Lyon

Lyon, France

FUNDAMENTAL COMPUTER SCIENCE MASTER OF SCIENCE YEAR 2

2018 - 2019

- Computational Geometry, Hard lattice problems, Lower bound methods, Cryptanalysis, Topological combinatorics.
- Local Fields and Galois Cohomology classes followed in Mathematics department.

ENS de Lyon

Lyon, France

FUNDAMENTAL COMPUTER SCIENCE MASTER OF SCIENCE YEAR 1

2017 - 2018

- Major part of CS department's lectures.
- Advanced Algebra, Introduction to Number Theory and Algebraic Geometry classes followed in Mathematics department.

ENS de Lyon

Lyon, France

FUNDAMENTAL COMPUTER SCIENCE LICENSE "MENTION TRÈS BIEN" (HIGHEST HONORS)

2016 - 2017

- Major part of CS department's lectures.
- Introduction to Quantum Computing course validated.
- Algebra I & II courses validated in Mathematics department.
- Probability and Integration I & II courses validated in Mathematics department.

Lycée Massena

Nice, France

PREPARATORY CLASSES TO "GRANDES ÉCOLES" MATHEMATICS PHYSICS *

2014 - 2016

- Admissible ENS, ENS Cachan, ENS Rennes, Mine Paristech, Centrale Paristech.

Lycée Thierry Maulnier

Nice, France

SCIENTIFIC BACALURÉAT "MENTION TRÈS BIEN" (HIGHEST HONORS)

2011 - 2014

Technical Skills

Languages mastered, C, C++, Python, OCaml

Languages known, Rust, Java, PHP, HTML, CSS, Magma, Latex, Coq

Operating System, Linux, Windows

Database, MySQL, SQLite, ElasticSearch

Languages

English, C1 Cambridge English Advanced (CEA) - Spoken, Written

French, Native - Spoken, Written

Spanish, Notions

Niçois (Regional language), Spoken

Professional and Miscellaneous Experience

LIP (ENS de Lyon) - AriC team

Lyon, France

RESEARCH INTERNSHIP : ALGORITHMS ON NUMBER THEORETIC BASED LATTICES

Sept 2020 - Feb 2021

Under the supervision of Damien Stehlé

Esker France / Freelance

Lyon, France

BACKEND DEVELOPPER

Oct 2019 - August 2020

Backend Programming in C++ and Python for web applications. Scripting in Python and Javascript.

LIX - GRACE team

RESEARCH INTERNSHIP : HARD HOMOGENOUS SPACES AND COMMUTATIVE SUPERSINGULAR ISOGENY BASED

DIFFIE-HELLMAN

Under the supervision of Benjamin Smith

Palaiseau , France

Feb - July 2019

Lycée du Parc

MATHEMATICS ORAL QUESTIONING IN PREPARATORY CLASSES TO "GRANDES ÉCOLES"

For the MPSI students of Mr. Demange (832) and Mr. Kapoudjian (833)

Lyon, France

Sept 2017 - Jan 2019

University of Copenhagen - QMATH team

RESEARCH INTERNSHIP : HOMOLOGICAL PRODUCT CODE AND WEIGHT OF RANDOM TENSORS

Under the supervision of Péter Vrana

Copenhagen , Denmark

Mai - July 2018

Lycée du Parc

MATHEMATICS ORAL QUESTIONING IN PREPARATORY CLASSES TO "GRANDES ÉCOLES"

For the MPSI students of Mr. Demange (832) and Mr. Kapoudjian (833)

Lyon, France

Sept 2017 - Jan 2019

INRIA Nancy Grand Est- CARAMBA Team

RESEARCH INTERNSHIP : WALKING ALONG THE INFRASTRUCTURES OF REAL QUADRATIC AND PURE CUBIC FIELDS

Under the supervision of Pierre-Jean Spaenlehauer

Nancy , France

June - July 2017

TIPE for ENS admission

FORMAL NEURAL NETWORKS AND CYBENKO'S APPROXIMATION THEOREM

2016

Camp Monitor

BAFA (French brevet of aptitude for Camp monitoring) obtained in Aug 2016

France

June 2016 - Today

Competitive Programming

- SWERC 2018, team ENPLS (ENS de Lyon)
- SWERC 2017, team ENPLS (ENS de Lyon)
- Prologin Finalist in 2017, 2015, 2014, 2013

Specific fields of interest

- Cryptography.
- Algebraic and algorithmic number theory, geometry of numbers.
- Algebra and its applications in computer science.

Extracurricular Activities

Girls Can Code

MEMBER

Summer camp for girls bellow 18, to promote the programming to girls.

<https://gcc.prologin.org>.

Sept 2017- Today

Prologin

MEMBER

Organization of Prologin contest (competitive coding).

<https://prologin.org>

Sept 2017- Today

ConférENS (ENS de Lyon)

EX-PRESIDENT

Organization of conferences for scientific vulgarization and various knowledge sharing.

Youtube channel: https://youtube.com/channel/UC_ZChHhr5nDrUymz7qsRqRw

Feb 2017- Feb 2018

Miscellaneous

PERSONAL FIELDS OF INTEREST

- Guitar player for 8 years
- Martial art former practitioner
- Theatrical improvisation practitioner