# Clémence Réda

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# **Education and qualifications**

#### Faculty of Mathematics, Informatics and Mechanics (University of Warsaw)

**Poland** 

Internship

2017 – 2018

Ten-month-long internship in research, included in the curriculum of ENS Paris-Saclay (former Ecole Normale Supérieure\* de Cachan).

#### ENS Paris-Saclay (former Ecole Normale Supérieure\* de Cachan)

France

Masters

2016 - 2017

First year of Masters diploma in Computer Science, majoring in Bioinformatics, Randomized Algorithms, Convex Optimization, Computer Vision, Machine Learning, Networks, Biology.

#### Ecole Normale Supérieure de Cachan and Université Paris Diderot

France

Bachelor's degree

2015 - 2016

Bachelor's degree in Computer Science, majoring in Algorithmics, Formal Langages, Programmation, Logics, Architecture and Systems, Computability, Complexity, Databases, Lambda-Calculus, Discrete Mathematics.

# Lycée Louis-le-Grand, Paris

**France** 

Classe préparatoire aux grandes écoles\*\*

2013 - 2015

Majoring in Mathematics, Computer Science and Physics.

#### Lycée Albert Einstein, Bagnols-sur-Cèze

**France** 

Baccalauréat S-Mathématiques\*\*\*

Maccalaureat 5-Wathematiques

2013

- Majoring in Mathematics.
- \* An *Ecole Normale Supérieure* is a school especially aimed at training future teachers and researchers.
- \* A classe préparatoire is a prep course to train undergraduate students for enrollment in highly-selective French colleges. It is considered equivalent to the first two years of a Bachelor's degree.
- \*\* The baccalauréat is the French equivalent of a final highschool-leaving/A-level examination.

# **Conferences**

#### BIT'18 and Workshop 6 of ECCB'18

(talk)

June & September 2018

C. Réda & B. Wilczyński. Automated Inference of Gene Regulatory Networks Using Explicit Regulatory Modules.

# Internships and projects

#### Regulomics Team, Dr. B. Wilczyński

Warsaw, Poland

Internship in Bioinformatics, 10 months

2018

Theoretical work to include explicit specific biological connections in gene regulatory networks, and study their influence on inference and simulation of such biological models.

Genomics and Regulatory Systems Unit, Dr. N. Luscombe and Dr. G. Ilsley

Okinawa, Japan

Internship in Bioinformatics, 5 months

Early 2017

Implementation in R of an application for single-cell RNA-sequencing data analysis, design and implementation of a novel algorithm for cell clustering.

# Group project in C++

Design and implementation of a novel recommender system.

Late 2016

# CBiB team, supervised by Dr. M. Nikolski and M. Raffinot

Bordeaux. France

Internship in Bioinformatics, 2 months

Summer 2016

Compared analysis of taxonomic trees: improvement of the analysis of metagenomic data in medical studies: TaxoTree, TaxoCluster, TaxoClassifier softwares in Python.

#### Group class project in Scala

Implementation of a Tower Defense game.

2016

#### Class project in OCaml

Implementation of a parser-lexer with yacc.

2016

### Programming class project in OCaml

Implementation of a simplified-C compiler.

Late 2015

## With the help of the INSERM of Montpellier, France

Paris, France

Project for the classe préparatoire

2013 - 2015

Design and implementation in Python of a model of the evolution of tumoral cells in breast cancer, using circulating tumor DNA.

# **Skills**

Programming languages.

OCaml, Javascript/Typescript, R, Python 2: Used for several projects, at advanced levels.

Python 3, Scala, Matlab: Used for several projects, more especially in bioinformatics.

LaTeX, TeX, Beamer: Widely-used for reports and defences.

Other self-taught languages/frameworks:: Django, Jekyll, Shiny, HTML/CSS, PHP, SQL, Bash, C/C++, Intel x86 Assembly, Haskell.

Databases.....

MySQL, MongoDB, NeDB:

Operating Systems.

Windows (up to 10), Linux (Debian, CentOS, Ubuntu), Mac.:

Adobe Photoshop and Photoshop-like softwares, Microsoft Office, Open Office.:

# Language proficiency

French: C2

Native speaker.

English: C1

TOEFL score (in 2016): 643/677.

Spanish: B1

Intermediate level, studied at school for seven years.

Arabic: A1

Basic level, self-taught language.

#### Miscellaneous

Porto (Portugal)

Team wons 27th place out of 60 in the SWERC 2016 contest.

November 2016

Attended prep courses for the ACM contest.

2015 – 2016

Paris (France)

Attended Django Girls event.

Django Girls events are meant to teach bases of web programming.

April 2016

Geneva (Switzerland)

Attended the MASTERCLASS of Physics at the CERN.

2013

Nîmes (France)

Won the Issoire writing prize.

The Issoire prize is a French regional writing contest.

2011

Paris (France)