Curriculum Vitae

Clémence Réda

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Education and qualifications

2018 – present **Masters MVA**, *ENS Paris-Saclay (former Ecole Normale Supérieure* de Cachan)*, France.
Second year of *Master Vision, Apprentissage (MVA)* diploma in Mathematics and Computer Science. **Subjects:** Game Theory, Graphs in Machine Learning, Object Recognition and Computer Vision, Probabilistic Graphical Models, Reinforcement Learning, Topological Data Analysis.

2017 – 2018 **Internship**, *Faculty of Mathematics, Informatics and Mechanics (University of Warsaw)*, Poland.
Ten-month-long internship in research, included in the curriculum of ENS Paris-Saclay (former Ecole Normale Supérieure* de Cachan).

2016 – 2017 **Masters MPRI**, *ENS Paris-Saclay (former Ecole Normale Supérieure* de Cachan)*, France.
First year of *Master Parisien de Recherche en Informatique (MPRI)* diploma in Computer Science. **Subjects**: Bioinformatics, Biology, Computer Vision, Convex Optimization, Machine Learning, Networks, Randomized Algorithms.

2015 – 2016 **Bachelors**, *Ecole Normale Supérieure de Cachan and Université Paris Diderot*, France.
Bachelors degree in Computer Science. **Subjects**: Algorithmics 101, Complexity/Computability, Databases, Discrete Mathematics, Formal Langages 101, Lambda-Calculus 101, Logics 101, Programmation, Systems.

2013 – 2015 ***Classe préparatoire aux grandes écoles*****, *Lycée Louis-le-Grand, Paris*, France.
Majoring in Mathematics, Computer Science and Physics (MPSI/MP).

2013 ***Baccalauréat S-Mathématiques******, *Lycée Albert Einstein, Bagnols-sur-Cèze*, France.
Majoring in Mathematics and Biology (S-SVT-Math).

* *An **Ecole Normale Supérieure** is an elite school focused on theoretical research.*

* *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.*

References

Dr. Bartek Wilczyński **Head of team Regulomics**.
Faculty of Mathematics, Informatics and Mechanics (MIM UW) in Warsaw, Poland.

Dr. Macha Nikolski **Head of the Bordeaux Bioinformatics Center CBiB**.
Member of **MABioVis** team in LaBRI in Bordeaux, France.

Conferences

June & September 2018 (**talk**), *BIT'18 and Workshop 6 of ECCB'18*.
C. Réda & B. Wilczyński. **Automated Inference of Gene Regulatory Networks Using Explicit Regulatory Modules**.

Professional Experience

Internships

2017 – 2018   **Internship in Bioinformatics**, *Regulomics, supervised by Dr. B. Wilczyński*, Warsaw, Poland, 10 months.
Theoretical work to include explicit specific biological connections in gene regulatory networks, and study their influence on inference and simulation of such biological models.

2017   **Internship in Bioinformatics**, *Genomics and Regulatory Systems Unit, supervised by Dr. N. Luscombe and Dr. G. Ilsley*, Onna-son, Japan, 5 months.
Implementation in R of an application for single-cell RNA-sequencing data analysis, design and implementation of a novel algorithm for cell clustering.

2016   **Internship in Bioinformatics**, *CBiB, supervised by Dr. M. Nikolski and Dr. M. Raffinot*, Bordeaux, France, 2 months.
Compared analysis of taxonomic trees in a medical setting: improvement of the analysis of metagenomic data in medical studies: *TaxoTree, TaxoCluster, TaxoClassifier* softwares in Python.

Practical experience

Scala Tower Defense   **Ecole Normale Supérieure de Cachan**, *2016*.
A Tower Defense game in Scala using SWING.

*Simplified parser-lexer with **yacc***   **Ecole Normale Supérieure de Cachan**, *2016*.
Class project in OCaml.

MD5 Breaker   **Ecole Normale Supérieure de Cachan**, *2016*.
A MD5 breaker based on logic inversion.

C variant Compilator   **Ecole Normale Supérieure de Cachan**, *2015*.
A compiler from a not-typed subset of C (with exceptions) to ASM x86 in OCaml.

Skills

Programming languages

R, Python 2, Matlab/Octave   Used for several projects, at advanced levels.

OCaml, Javascript/Typescript   Fluent.

C/C++, PHP, Haskell, Bash   Used.

LaTeX, TeX, Beamer   For reports and defences.

Web Programming

Frameworks   Django, Jekyll/Hexo, R Shiny.
Languages: HTML/CSS5.

Databases

MySQL, MongoDB, NeDB.

Operating Systems

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

Softwares

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

November 2016 **SWERC 2016**, *Team wons 27th place out of 60*, (Porto, Portugal).

April 2016 **Attendance of the *Django Girls* event**, *Django Girls* events are meant to teach bases of web programming, (Paris, France).

2015 – 2016 **Attendance of prep courses for the ACM contest**, (Cachan, France).

2013 **Attendance of the MASTERCLASS of Physics**, CERN, (Geneva, Switzerland).

2011 **Co-winner of the *Issoire* writing prize**, The *Issoire* prize is a French regional writing contest, (Nîmes, France).