

Curriculum Vitae

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 Languages 101, Lambda-Calculus 101, Logics 101, Programming, 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. Ilesley, 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 Compiler **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	<i>Native speaker.</i>
English	C1	<i>TOEFL score (in 2016): 643/677.</i>
Spanish	B1	<i>Intermediate level, studied at school for seven years.</i>
Arabic	A1	<i>Basic level, self-taught language.</i>

Miscellaneous

November 2016	Team wins 27th place out of 60 in the SWERC 2016 contest. , Porto (Portugal).
2015 – 2016	Attended prep courses for the ACM contest. , Paris (France).
April 2016	Paris (France) , Attended <i>Django Girls</i> event. <i>Django Girls</i> events are meant to teach bases of web programming.
2013	Attended the MASTERCLASS of Physics at the CERN. , Geneva (Switzerland).
2011	Nîmes (France) , Won the <i>Issoire</i> writing prize. The <i>Issoire</i> prize is a French regional writing contest.