



Marina Boudin

Public Health PhD student

Date of birth

04/08/1997

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Web & Github

Website (click)
Github (click)

Programming Languages

- Python
- Java
- Javascript
- HTML/CSS
- C++/C
- Perl
- Shellsript(Bash)
- SQL
- R

Language

- **Anglais** :
 - **Espagnol** :
- Beginner

Soft skills

- Curieuse
- Motivée
- Esprit d'équipe
- Enthousiaste
- Dynamique

Hobbies

- Cooking
- TV shows / movies
- Reading
- Crafts

Studies

September 2020
to today

PhD in public Health

BPH team ERIAS, Bordeaux, France

Option informatic and health.

Computational approach for drug repositioning : Toward an holistic perspective with knowledge graphs (OREGANO).

September 2018
to June 2020

Master of Bioinformatics

University of Bordeaux, France

Option Computational Biology. 1st year : 14/20 ; 2nd year : 14.82/20. Degree obtained with distinction

Training of algorithmic and programming, imagery, omics, environmental data science, oriented object programming, database, next-generation sequencing, software engineering et structural bioinformatics.

September 2017
to June 2018

Third year of the licence of biology

University of Bordeaux, France

Option life science, organisms and ecology.

Degree obtained with distinctions. Rank : 107 / 416.

Training of organisms biology, ecophysiology et ecology.

Option sensorial system of animals and plants, agrosystem, soil and climatic.

September 2015
to June 2017

Preparatory classes for grandes écoles (CPGE)

High-school Michel-Montaigne, Bordeaux, France

CPGE BCPST (Biology, Chemistry, Physics and Geology).

Training of mathematics (linear algebra, analyse, probability, informatics), life science (cellular and molecular biology, genetics, organisms, populations and ecosystems), geology (tectonic, sedimentology, atmosphere, petrology...), physics (optical, mechanics...) and chemistry (atom and chemical structures, organic chemistry...).

June 2015

High school graduation

High-School Louis Audouin Dubreuil, Saint Jean d'Angély, France

With distinctions. *Option life science and geology.*

Professional experience

March 2018

to February 2020 **Baby-sitter**

Individual, Bordeaux (33), France

Children's care during school periods, aged of 6-7 years old.

October 2017

tp March 2018 **Baby-sitter**

Kinougarde, Bordeaux (33), France

Children's care during school periods, aged of 5 years old.

July 2015

to August 2015 **Waitress and kitchen aid**

Leisure park of Antezant, Antezant (17), France

Service and preparation of meals.

Internships

February 2020

to July 2020

Computational approach for drug repositioning [BPH ERIAS, Bordeaux, France](#)

6 months end-of-course internship in the research enter Bordeaux Population Health.

Drug development is a costly and time consuming activity. The traditional process relies on extensive experimental efforts to map out the relevant part of the chemical space. Data about molecules, diseases, genes and other entities are present on many isolated databases, be that internal or external and in heterogeneous formats. They either require costly and inflexible data integration, or time-consuming workflows. Computational approaches, and more recently artificial intelligence based techniques, have emerged as a promising alternative for reducing the development cycle through drug repositioning. Knowledge bases are used to predict new links between old drugs and new targets. Predicting missing links in a knowledge graph to find candidate drugs for being repositioned is the subject of this internship.

June 2019

Deep neural network modelisation

[LABRI, Bordeaux, France](#)

One month internship.

Building a website able to use excel file and start a deep neural network pipeline with pytorch.

June 2018

Macromolecules movements modelisation

[LABRI, Bordeaux, France](#)

One month internship.

Modelisation on Netlogo of succinate deshydrogenase, III complex and associated reactions in the membrane.

Publications

- 1. Boudin, Marina. « Computational Approaches for Drug Repositioning : Towards a Holistic Perspective Based on Knowledge Graphs ». Proceedings of the 29th ACM International Conference on Information & Knowledge Management, ACM, 2020, p. 3225-28, doi :10.1145/3340531.3418510.