

Hector Roux de Bézieux |

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in www.linkedin.com/in/hector-rouxdebezieux/ GitHub <https://github.com/HectorRDB>

*Biostatistics Graduate Student looking to apply his strong
mathematic skills to solve concrete issues in genomic data analysis*

Education

Master of Arts in Biostatistics

GPA 4.0

UC Berkeley

May 2019 (expected)

- *Statistics*: PhD level classes in advanced theoretical & applied statistics, computational statistics, and time series with specific application on shrinkage, multi-hypothesis testing and experiment design.
- *Biostatistics*: Specific courses on genomic data analysis, including sequencing algorithm, biological processes, normalization and differential expression, with a special focus on scRNA-seq.
- *Computer Science*: Additional classes on machine learning (neural nets, classification algorithms) and statistical computing.

Master of Science in Biology & Bioengineering

GPA 3.86

École polytechnique and UC Berkeley

May 2017

- *SmartPhage, UC Berkeley-based start-up*: Conducted market analysis for the prospect of a technology targeting antibiotic-resistant bacteria and designed protocols for biosafety level 2 environments.
- *Abdul Barakat's Cardiovascular and Cellular Engineering Lab, Paris*: Mathematical modelization of transdermal drug delivery and computational simulation of a microneedle device.

Bachelor of Science in Mathematics & Physics

GPA 3.94

École polytechnique

2015

Research Experience

Sandrine Dudoit's Lab & Lin He's Lab

Graduate Student Researcher

UC Berkeley

Septembre 2017 – Ongoing

- Development of normalization techniques and time-series clustering methods in the context of embryogenesis and scRNA-Seq.
- Computational implementation of those techniques.
- Integration of Chip-Seq and RNA-Seq data.
- Regular presentation of work using tools such as markdown documents or shiny apps.
- Collaboration between a biology and a biostatistics lab.

Institut Jacques Monod, Cellular Adhesion and Mechanism Lab

Research Intern, Benoit Ladoux and René-Marc Mège's team

Paris, France

March–July 2016

- Collaborated with members of the team and other labs in France.
- Bibliographic research.
- Designed and conducted lab in vitro experiments with results to be published.
- Produced a 40-pages scientific report and presented several times my results in front of a multi-national team.

Work Experience

Whole Biome

Computational Biologist intern

June 2018 - Ongoing

- Analysis of clinical trial data.
- Helped in designing a future clinical trial.
- Evaluated assembly pipelines for complex metagenomics assembly projects.

PSA Peugeot Citroën

Intern, Strategic Partnership Department

June–August 2015

- Independently analyzed financial and auditing reports to give a strategic overview of PSA's Chinese partners.
- Participated in meetings and interview to conceive the business model for a joint PSA R&D center in China.

French Army, Elite Mountain Troop

2nd Lieutenant

Sept 2013–April 2014

- Took courses on leadership in the French ground forces
- Led a group of 8 professional soldiers during a NATO exercise in great Northern Norway
- Led a group of 30 freshly enrolled soldiers through their first weeks in the army

Related skills

Computer skills.....

MAPLE, Stata (Basics), Python, Bash(Intermediate), R, Latex (Expert)

Languages.....

English (fluent), French (native), German (intermediate)

Interests

First Aid Certification by the Red Cross: 2011

Rowing: 6 years at national level

Cycling: Over 1500 miles annually over the last years

Sailing: Summer instructor