

# ANTOINE BICHAT

Mathematical Engineer - PhD in Biostatistics

✉ antoine.bichat@protonmail.com

## PROFESSIONAL EXPERIENCE

- Today  
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2021
- **Computational scientist**  
Servier 📍 Paris area, France
    - Disease understanding, statistical modeling
    - Oncology, hard-to-treat cancers, pediatric cancers
  - **Industrial PhD Student**  
Enterome 📍 Paris, France
    - PhD with CIFRE convention
  - **Biostatistician intern**  
Nestlé Research Center 📍 Lausanne, Switzerland
    - Data analysis of microbiome 16S sequencing
    - Implementation of DADA2 pipeline for sample inference
  - **Biostatistician intern**  
Enterome 📍 Paris, France
    - Data analysis of microbiome Illumina next-generation sequencing
    - Writing and automation of bioinformatics quality control report

## EDUCATION

- 2020  
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2018
- **PhD**  
Université Paris-Saclay 📍 Paris area, France
    - *Discovering multi-scale metagenomic signatures through hierarchical organization of species*
    - Tutored by Dr Christophe Ambroise, Dr Mahendra Mariadassou and Mr Jonathan Plassais
  - **Mathematics of Modelling Master's degree**  
Sorbonne Université 📍 Paris, France
    - Applied Mathematics for Biology and Medical Sciences
    - Data Science
  - **Graduate Engineering School**  
Mines Nancy 📍 Nancy, France
    - Mathematical engineering
    - Bioengineering
  - **Classe Préparatoire aux Grandes Écoles**  
Lycée du Parc, MP\* 📍 Lyon, France



## INFO

- 🏠 Paris
- 🔗 [abichat.github.io](https://github.com/abichat)
- 📄 [antoinebichat](#)
- 🐦 [@\\_abichat](#)
- 🗣️ [@abichat](#)
- 🎂 1993

## LANGUAGES

- 🇫🇷 French (mother tongue)
- 🇺🇸 English (fluent - C1, IELTS)
- 🇮🇹 Italian (proficient - B2, CILS)




## TECHNICAL SKILLS

Highly skilled in R, tidyverse and visualization



Skilled in Python, Matlab, LaTeX and Office

Knowledge in C++, SQL, HTML and CSS




## TEACHING EXPERIENCE

- Today  
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2019
- **Data Science Starter Program**  
École Polytechnique, 21h, continuing education  Paris area, France
- 2020  
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2018
- **An Introduction to the Linear Model**  
AgroParisTech, 40h, engineering students  Paris, France
- 2017
- **Visualization with R**  
Mines Nancy, 3h, engineering students  Nancy, France

## SCIENTIFIC PRODUCTIONS

- 2020
- **Hierarchical correction of p-values via a tree running Ornstein-Uhlenbeck process**  
Preprint, submitted to *Computational Statistics*
- 2020
- **Incorporating phylogenetic information in microbiome abundance studies has no effect on detection power and FDR control**  
Published in *Frontiers in Microbiology*
- 2019
- **Quantifying the impact of tree choice in metagenomics differential abundance studies with R**  
Poster for UseR! 2019  Toulouse, France
    - Winner of Biostatistics poster prize
- 2019
- **Impact of tree choice in metagenomics differential abundance studies**  
Talk at SPMGD & JdS  Barcelona, Spain & Nancy, France

## VOLUNTEER WORK

- 2021  
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2018
- **R related activities**  
Involved in the R community  Paris, France
    - Treasurer of *MolieR* (French association for the promotion of R)
    - Active member of *State of the R* (AgroParisTech R users group)
    - Organizing Committee for *SatRday Paris 2019*
    - Organizing Committee for *Rencontres R Paris 2020/21*
- 2017  
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2014
- **During Engineering School**  
Mines Nancy  Nancy, France
    - Academic year-group representative
    - Student member of the Executive Board of Mines Nancy
    - President of the debating and conference club
    - Communication Officer for the recruitment forum of Mines Nancy
- 2014  
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2011
- **UDPS 69 (first aid association)**  
First aid worker, lifeguard  Lyon area, France