

# ANTOINE BICHAT

Mathematical Engineer - PhD Student in Biostatistics

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## EDUCATION

- 2020  
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2018
- **PhD**  
Enterome & LaMME 📍 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

## PROFESSIONAL EXPERIENCE

- 2017
- **Biostatistician intern**  
Nestlé Research Center 📍 Lausanne, Switzerland
    - Data analysis of microbiome 16S sequencing
    - Implementation of DADA2 pipeline for sample inference
- 2016
- **Biostatistician intern**  
Enterome 📍 Paris, France
    - Data analysis of microbiome Illumina next-generation sequencing
    - Writing and automation of bioinformatics quality control report

## TEACHING EXPERIENCE

- 2020  
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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



## INFO

🏠 Paris  
🔗 [abichat.github.io](https://abichat.github.io)  
in 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++, HTML and CSS



## SCIENTIFIC PRODUCTIONS

- 2020 • **Incorporating phylogenetic information in microbiome abundance studies has no effect on detection power and FDR control**  
Published in *Frontiers in Microbiology*  
**Antoine Bichat**, Jonathan Plassais, Christophe Ambroise and Mahendra Mariadassou
- 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

- 2020 | 2018 • **🔗 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 | 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 | 2011 • **UDPS 69 (first aid association)**  
First aid worker, lifeguard 📍 Lyon area, France