

# Florian Hébert

Data scientist

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Data scientist with a strong background in biotechnology companies, leveraging machine learning and computer vision techniques to solve intricate problems for product quality and process improvement.

## Experience

2022 - **Bioinformatics Engineer**, *Stilla Technologies*, Villejuif

- Developed automated defect detection tools, enabling effective defect tracking and root cause identification to improve digital PCR chip quality and reliability
- Implemented interactive image annotation tools feeding databases, providing essential data for the development and refinement of automated detection algorithms
- Developed a web scraping tool, automating repetitive data collection tasks, resulting in faster digital PCR assay development
- Developed a new vignetting (flat-field) correction method, ensuring compliance with QC criteria of numerous instruments to be released

2019 - 2022 **R&D Engineer, Data Scientist**, *Microbs*, Rennes

- Pioneered the development of monitoring and analysis tools for the R&D team, enabling to efficiently identify product quality improvement solutions
- Developed, assessed and integrated machine learning - based bacteria recognition algorithms

2016 - 2019 **PhD Thesis**, *Agrocampus Ouest / IRMAR*, Rennes

Dependence handling for global testing and prediction problems.

- Comparison and development of global testing methods in the context of genome-wide association studies (GWAS), namely for the detection of gene - disease association effects, gene - environmental factor interaction effects and gene - gene interaction effects
- Development of genotypic data simulation algorithms used to conduct realistic simulation studies, specifically to assess the performance of competing detection methods in GWAS
- Regression on highly correlated explanatory variables; application on chemometrics datasets.

## Education

2016 - 2019 **PhD Thesis (Applied Statistics)**, *Agrocampus Ouest, European University of Brittany, Rennes, France*

2014 - 2016 **Master's Degree, Applied Statistics / Data science**, *Rennes 2 University, France*

## Skills

### Statistics

Descriptive and inferential statistics  
Data analysis  
Data visualization  
Modelling  
Machine learning

### Computer vision

Image analysis (OpenCV)  
Image segmentation  
Deep learning (MLP, CNN)

### Software development

Programming languages: Python, R  
Databases: relational databases, SQL  
Version control, production: Git, CI, Docker, Docker Compose  
Testing: unit tests, UI tests

## Languages

**French:** Native

**English:** Proficient