

# Adrien Perigord

**DATE OF BIRTH:**  
04/11/1993

## CONTACT

**Nationality:** French



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## WORK EXPERIENCE

**01/05/2019 – CURRENT** – Bordeaux, France

### Data scientist

Lucine

Conducting state of the art research on automatic pain recognition and disease screening.

Main tasks include designing or managing :

- Data collection through clinical experiment or observational studies
- Clinical trials
- Scientific reports
- Various machine learning algorithm (SVM, RF, CNN, LSTM, Gradient Boosting, Clustering, ...)
- Data preprocessing
- Data analysis
- Data visualization
- Communication to management to facilitate decision making processes

Technical aspects :

- Solutions mostly designed in python 3 and R
- Various libraries (numpy, TensorFlow, SciPy, matplotlib, pandas, keras, ..., dplyr, ggplot2, plotly, shiny, caret, e1071, ...)
- Windows and Linux environments

Main soft skills needed :

- Interdisciplinary communication (experts and non-experts audience) and scientific popularization
- Strong analytical, critical thinking and problem solving skills to convert medical and scientific issues into technical solutions

**01/09/2020 – CURRENT** – Courbevoie, France

### Lecturer

ESILV (École supérieure d'ingénieurs Léonard-de-Vinci)

Teaching graduate students and future engineers mathematics applied to biology and medicine.

Biological system modeling course, as part of the Health-BioTech major of the global engineering cursus.

Lectures and practical courses, 40h/Semester

**01/03/2017 – 01/10/2018** – Eragny, France

### Data scientist

Safran Electronics & Defense

Designing automatic monitoring solutions for airplane on-the-ground and in-flight maintenance

Main projects described in two international patents (WO 2020/169833; WO 2019/134918)

Part of an R&D team of engineer, focused on aeronautic components monitoring via IoT.

In charge of designing and conducting experiments to assess the monitoring and surviving capabilities of components in reproduced aeronautical conditions.

In charge of designing, validating and presenting machine learning solutions to solve regular issues for ground maintenance teams and pilots

## EDUCATION AND TRAINING

**01/09/2016 – 01/09/2018** – 15 rue de l'Hôtel Dieu, TSA 71117, Poitiers

### **M.Sc - Mathematics**

University of Poitiers

<https://www.univ-poitiers.fr/>

**01/02/2013 – 30/06/2016** – 15 rue de l'Hôtel Dieu, TSA 71117, Poitiers, France

### **B.Sc - Physics**

University of Poitiers

<https://www.univ-poitiers.fr/>

## LANGUAGE SKILLS

**MOTHER TONGUE(S):** French

**OTHER LANGUAGE(S):**

### **English**

**Listening**  
C2

**Reading**  
C2

**Spoken  
production**  
C2

**Spoken  
interaction**  
C2

**Writing**  
C2

### **Spanish**

**Listening**  
B2

**Reading**  
B2

**Spoken  
production**  
B2

**Spoken  
interaction**  
B2

**Writing**  
B2

### **German**

**Listening**  
A2

**Reading**  
A2

**Spoken  
production**  
A2

**Spoken  
interaction**  
A2

**Writing**  
A2

### **Italian**

**Listening**  
A2

**Reading**  
A2

**Spoken  
production**  
A2

**Spoken  
interaction**  
A2

**Writing**  
A2

### **Russian**

**Listening**  
A1

**Reading**  
A1

**Spoken  
production**  
A1

**Spoken  
interaction**  
A1

**Writing**  
A1

## DIGITAL SKILLS

### **Softwares and IT**

Microsoft Powerpoint / Zoom / Outlook / Microsoft Teams / Microsoft Excel / Microsoft Word / Microsoft Office / Git / Trello / JIRA ticketing system / Miro Online Board / Linux / Windows

### **Computer languages and libraries**

Python / Python libraries (NumPy, Pandas, Keras, SciKit-Learn, TensorFlow, Matplotlib, Seaborn) / R / Matlab / SQL / SAS / R libraries : tidyverse, ggplot 2, dplyr, lme4, caret, e1071, shiny

## PUBLICATIONS

### Patent - METHOD FOR DIAGNOSING A STATE OF WEAR OF AN AIRCRAFT PARKING BRAKE

2019 <https://register.epo.org/application?number=EP19700124>

WO 2019/134918

Abstract

The invention relates to a method for diagnosing a state of wear of an actuator comprising at least one electric motor. The method comprises the following steps: - recording a signal from the motor during an activation and a deactivation of the actuator, the signal comprising a first maximum during activation and a second maximum during deactivation, - executing a windowing algorithm on the signal to obtain a set of standardized data comprising the first and second maximums, - using at least one classification method in at least two classes in order to establish a score for the dataset for each of the classes of the classification method, - evaluating the state of wear of the actuator using the scores from the dataset.

### Patent - Method for detecting a degradation of a wheel tyre

2020 <https://register.epo.org/application?number=EP20705731>

WO 2020/169833

Abstract

The invention relates to a method for detecting a degradation of an actual tyre of a wheel, comprising the steps of: - acquiring at least one first three-dimensional object (1) representing a shape of the actual tyre, using an electronic apparatus comprising at least one three-dimensional sensor, the first three-dimensional object being formed by a set of captured points; - determining, from the set of captured points, a position of the central point of the actual tyre; - resetting the first three-dimensional object in order to obtain a second three-dimensional object; - transforming the second three-dimensional object in order to obtain one or more two-dimensional objects; - analysing the one or more two-dimensional objects in order to detect the degradation of the actual tyre.