



**Damien  
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(he/him)

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My name is Damien Sicard, a French **former electrician**, turned **engineer** and future **researcher**. Although, I pursue a **PhD** in **Physics-Chemistry**, my research journey led me to **write code** on a **daily basis** and shift my research interests toward applications of **Artificial Intelligence** algorithms. Thus, I became passionate about **software engineering** and the **open source** way to craft software. Finally, after my **PhD defense** (April-June 2023), I will be looking for a **research** or (and) **engineering** position involving **writing code** for **solving problems**.

## EDUCATION

### Ph.D. in Physics-Chemistry

Development of a flash sintering process, scientific codes and AI for computer vision.

University of Burgundy - Diamatec company 📍  
September 2019 - present 📅

### Master's degree in Energy Engineering

General engineering degree with a major in energy

University of Technology of Belfort-Montbéliard 📍  
2015 - 2019 📅

### French « Grandes Ecoles » exams

French engineering schools exams' preparation

Henri Parriat High School 📍  
2012 - 2015 📅

### Electrician technical degree

Professional electrician studies

Henri Parriat High School 📍  
2008 - 2012 📅

## SELECTED PUBLICATIONS

### Deep Learning and Bayesian Hyperparameter...

D. Sicard et al. 👤

Applied Sciences (2022) 📄

DOI: 10.3390/app122412606 🔗

## PROJECTS

### JAX : Autograd and XLA

Aspirant **JAX contributor**

jax.readthedocs 🌐

github.com/google/jax 🐙

## WORK EXPERIENCE

### Researcher in an industrial setting

- Development of flash sintering process
- Magnetodynamics finite element code
- Deep Learning (U-Net) for computer vision semantic segmentation applications

📍 University of Burgundy - Diamatec company  
📅 September 2019 - present

### R&D Engineer

- Led company doctoral grants submission
- Studies of Diamond Grinding Wheels (DGW) manufacturing

📍 Diamatec  
📅 Mars 2019 - September 2019

## SKILLS & LANGUAGES

### Computer

●●○ Python      ●●○ Pandas/Numpy  
●●○ Tensorflow      ●●○ JAX

### Other tools

● Scikit-learn   ● Matplotlib   ● Neptune/W&B  
● FreeFEM/FEniCSx (scientific computing)

### Languages

●●● French (native)      ●●○ English

## PERSONAL INTERESTS

📖 Open source   🍳 Cookery enthusiast  
🏃 Running   🧳 Avid traveler