

# Pierre Bouvet

(PhD, Engineer, MSc, BSc)

## Skills

Brillouin Scattering  
Optical design and alignment  
Programming  
Machine Learning  
Electronical Engineering  
Project Management

## EDP skills

Python  
Matlab  
C/C++  
Arduino

## Languages

French (native)  
English (fluent)  
Spanish (fluent)  
Catalan (fluent)

## Hobbies

Dog Training  
Running  
Sewing and Knitting  
DJing and Sound Engineering

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## Improving our understanding of the role of mechanical anisotropy in microbiology

### Education

**PhD – Université Claude Bernard Lyon 1** 2020 - 2023

PhD in Physics applied to Living Sciences  
Development of Brillouin Scattering for the Analysis of 3D cellular microcultures. Done at the CEA / LETI, in collaboration with Institut Lumière Matière (ILM)

**MSc – Grenoble INP - Phelma** 2018 - 2020

Master of Science (Nanomedicine and Structural Biology)

**Engineer Diploma – Grenoble INP - Phelma** 2018 - 2020

Biomedical Engineering Degree

**BSc – Grenoble INP – Phelma** 2017 - 2018

Bachelor of Science (Physics, Electronics, Telecommunications)

### Experience

**Assistant Professor - Polytech Lyon (France)** 2020-2023

Classes of Project Management and C++ programming

**Internship – Institut Lumière Matière (ILM) Lyon (France)** 2020

Realization of a VIPA spectrometer for the study of tumoral spheroids

**iGEM 2020 (Supervisor) – Grenoble (France)** 2020

Supervision of the biomedical engineers' students working on the PyoBusters project. The project aimed at modifying E. Coli bacteria to release therapeutic drugs to destroy P. Aeruginosa biofilms.

Gold Medal, Best Software Tool nomination, Best Hardware nomination

**iGEM 2019 (Contestant) - Grenoble (France)** 2019

Participation to the competition with the NeuroDrop project. The aim of the project was to detect

**President of Club Mix - Grenoble (France)****2019**

President of the largest DJ association of the engineering schools of Grenoble (~5000 students), responsible of the sonorization and performances at the events (~80 events/year)

**Assistant Professor - Grenoble (France)****2017-2019**

Assisting the Engineering Science teachers of the highschoools "Lycée Mounier" and "Lycée Argouges" for the Engineering Sciences Olympiads (regional bronze medal in 2019)

## Publications

Babin T, Dedole T, Bouvet P, Marcoux PR, Gougis M, et Mailley P.

*Electrochemical label- free pathogen identification for bloodstream infections diagnosis: Towards a machine learning based smart blood culture bottle.* Sensors and Actuators B: Chemical 387, no March (2023): 133748.

Bouvet P, Clément F, Papoz A, Dehoux T, Baritoux JC. (2024) *Multimode Fiber-Coupled VIPA Spectrometer for High-Throughput Brillouin Imaging of Biological Samples.* Journal of Physics: Photonics 6, no 2 : 025010.