

# BACHELOR/MASTER INTERNSHIP IN CARDIAC IMAGING

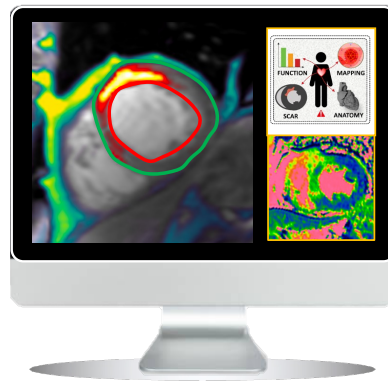
## Internship factsheet

### THE INSTITUTION

IHU LIRYC – Heart Rhythm Disease Institute – is a unique institute based in Bordeaux distinguished for its expertise in heart rhythm disorders with a medley of world-renowned experts working in various fields (clinical, imaging, modeling, artificial intelligence, computer science, ...). The research performed over the years at LIRYC has created a dynamic and unique intellectual atmosphere where scientists can conduct cutting-edge research with the sole goal of improving cardiac patients care.

### INTERNSHIP DURATION

The position is available immediately and for the expected duration of 4 to 6 months. The research project will be in strong collaboration with the Centre Hospitalier Universitaire (CHU) of Bordeaux.



### REQUIREMENTS

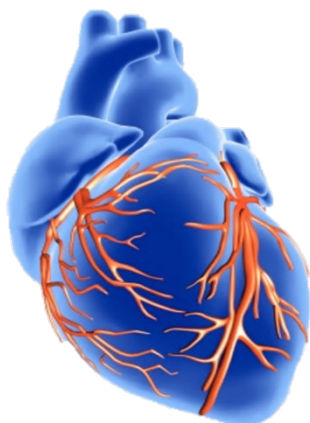
**Candidates must fulfil the following:**

- Must have completed a bachelor's degree in the fields of medical imaging, computer science, or engineering.
- Excellent computer programming skills are a requirement (Matlab and C/C++).
- Highly motivated, well-organised, and eager to learn in a multidisciplinary and innovation-driven team.

## Project Description

The diagnostic imaging team at IHU LIRYC has recently developed a new technology enabling the first-ever **colour-coded visualization and separation of myocardial scar, fat, and inflammation using cardiac magnetic resonance imaging**. To facilitate its clinical adoption, a set of image-processing algorithms initially implemented in Matlab needs to be translated, optimized, and validated for deployment on our clinical MRI scanners using C/C++ programming. This will require the use of C/C++ libraries to enable fast, robust, and efficient separation and quantification of these biomarkers.

**To apply:** Should you be interested, please submit a CV to Prof. Aurelien Bustin ([aurelien.bustin@ihu-liryc.fr](mailto:aurelien.bustin@ihu-liryc.fr))  
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