Two R&D Software Engineer Positions at Inria Sophia Antipolis

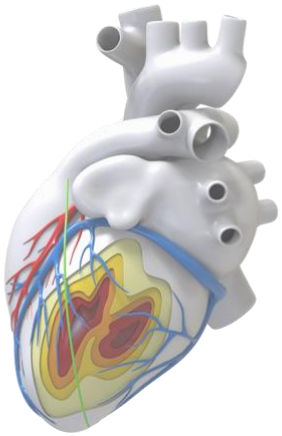
within the European Project inEurHeart (3 Years) in:

- Data Science Deployment

- Interactive Web 3D Simulation

Context

Artificial Intelligence and Digital Twin have the potential to revolutionise healthcare, however there are still important challenges in order to unleash their full potential. For the last 20 years, cardiac imaging and modelling have made tremendous progress, and this is now the right time to transfer all these academic results into clinical practice. Cardiac tachyarrhythmias are the perfect use-case as image integration hugely impacts catheter interventions and personalised electrophysiological modelling is a recognised and powerful non-invasive planification tool.
In this project, we will develop new products for the start-up inHEART leveraging these technologies, and conduct a randomised clinical trial to demonstrate the impact of inHEART on clinical practice: interventions twice faster and twice less failures. This will be complemented by a health economics study in order to position this European company at the forefront of image-guided cardiac interventions.



Positions Descriptions

1) **Data Science Deployment**: over the last years, deep learning algorithm were designed at Inria to automatically analyse 3D cardiac images. This position aims at making them more robust, more efficient, and ready to be deployed within a commercial product. It will involve optimisation of the computational load and setting up continuous update and test of the solution.

2) **Interactive Web 3D Simulation**: fast models of cardiac electrophysiology have been developed at Inria. This position aims at making them more robust, more efficient, and ready to be deployed within a commercial product. It will involve making the computations faster and developing a more complete web interface and interactions with the simulator.

These position will be based at Inria, the French Institute for Research in Computer Science and Mathematics, in Epione team of Inria Sophia Antipolis - Méditerranée, located on the French Riviera. It will be done in close collaboration with IHU Liryc, Bordeaux University Hospital, a world leading centre in the treatment of cardiac arrhythmias, and the inHEART start-up company.

Searched profiles

- Background in computer science
- Eager to work in the medical field
- Eager to learn and take initiatives
- Good coding skills in Python

Position 1:

- Good Knowledge of Deep Learning, in particular for images

Position 2:

- Good knowledge of web technologies, in particular 3D rendering

Job location: Inria Sophia Antipolis, 2004 route des lucioles, 06 902 Sophia Antipolis, France
Duration: 3 years
Start: Early 2021
Salary: depending on experience.

Send your resume, references and motivation letter to: maxime.sermesant@inria.fr