Position Title

Research Engineer – Deep Learning for Medical Imaging and Digital Twin of the Thoracic Aorta

Institution: Aix-Marseille University

Location: Marseille, France – Timone Medical Campus

Contract duration: 12 months

Salary: Approximately **€2100 net per month**, depending on experience.

Job description

We are recruiting a **Research Engineer** within an **ANR-funded research project** dedicated to the development of a **digital twin of the cardiovascular system**, with a particular focus on **blood flow modeling in the thoracic aorta**.

The project combines **medical imaging, artificial intelligence, and biomedical modeling** to develop advanced computational tools for the analysis and understanding of cardiovascular diseases.

The successful candidate will work in an interdisciplinary environment at the interface of **applied mathematics, machine learning, and cardiovascular medicine**.

Responsibilities

The Research Engineer will contribute to:

- **preparing, organizing, and managing medical imaging datasets**, mainly **MRI and CT scans**;
- **developing and training deep learning models** for the **automatic segmentation of the thoracic aorta**;
- **evaluating and validating the developed methods**;
- collaborating with an **interdisciplinary team of researchers, clinicians, and engineers**.

Candidate profile

Applicants should:

- hold either a **PhD** or a **Master's degree with at least 3 years of solid research or engineering experience**;
- have **hands-on experience with neural networks**, particularly for **segmentation or detection tasks**;
- be familiar with **medical imaging data**;
- have strong **scientific programming skills (Python, PyTorch or TensorFlow)**.

A practical exercise may be suggested according to candidates' experience

Why join this project?

This position offers the opportunity to:

- work on an **innovative research project at the interface of AI and cardiovascular medicine**;
- develop **advanced deep learning methods applied to medical imaging**;
- collaborate within an **interdisciplinary team of researchers, engineers, and clinicians**;
- contribute to the development of a **digital twin of the cardiovascular system**, an emerging and rapidly growing research field;
- work in a **stimulating international research environment**.

Working environment

The position is based in **Marseille, France**, mainly at the **Timone Medical Campus**, within a dynamic research ecosystem involving **mathematicians, computer scientists, and clinicians**.

Marseille is a vibrant Mediterranean city offering an **excellent quality of life**, a strong **scientific ecosystem**, and easy international access.

Application deadline

May 20, 2026

Scientific contact

Monique Bernard (monique.bernard@univ-amu.fr), Badih Ghattas (badih.ghattas@univ-amu.fr), Frank Kober (frank.kober@univ-amu.fr)

The application must be submitted as a compressed zip file named ***Last_First_Name.zip*** and containing at least the following files:

- CV with references.
- Cover letter emphasizing the candidate's suitability for the position.
- If you hold a PhD, the title of the thesis, laboratory, supervisors, date of completion, and abstract.
- List of publications, if any, with access links.