



We are looking for a

Researcher, Department Applied Research

Who are we?

Medis was created in 1989 as a spin-off of the Leiden University Medical Centre (LUMC Netherlands). Our founder and current CSO, Hans Reiber, built the company focusing on X-ray and image analysis of the heart and with the mission to make these tools available to all medical researchers and specialists.

For over 30 years, Medis has been providing high quality quantitative analysis solutions for cardiovascular imaging to the medical community. Our heritage and core values are based on this strong purpose of contributing to a healthier society by providing the right tools to cardiologists, radiologists, researchers, and industry partners.

Based on the principle “to measure is to know” we support medical professionals with determining the best diagnosis and the subsequent treatment strategies for all patients. Our software creation and realization process is as simple, as it is unique: starting from a medical need that develops from concept to product. In Medis, this continuous innovation leads to new software solutions based on new ideas for the ever-changing cardiovascular imaging environment. And at the same time, we remain relevant in a social and sustainable way. At Medis, quality is key.

Medis. Imaging solutions in a Heartbeat.

What will your role be?

As a part of our Applied Research Department, you will contribute to Medis' growth Strategy which is aimed at Product Leadership. The team works on innovative research projects towards algorithms/libraries that can be integrated by the Product Development Team in a Medis product or module, (research or clinical). These amazing products are then sold by our Marketing & Sales team. At the moment we are looking for a **Researcher** to work on either our echocardiography, multi-slice CT, or interventional cardiology product lines. Medis strives to be a product leader in the medical imaging domain and in certain cases our researchers work on a “proof-of-concept” as a study object which in turn helps drive Medis' longer term technology roadmap.

The topics to work on should be in line with the goals and priorities set in the New Product Introduction (NPI) process.



- To carry out innovative research and develop Proofs-of-concept
- To keep up with the international literature on the subjects
- To develop innovative, robust, and vendor-independent solutions that will work in daily clinical research & practice
- To develop algorithms in preferably Python or C++. Using as much as possible standard frameworks like ITK/SimpleITK, VTK, Numpy etc. The end result should be portable to a solution that can be integrated into applications built in C++ in a platform independent manner
- To write (system) documentation in English
- To collaborate with clinical partners for external testing, validation, and feedback on our innovations
- To incorporate feedback into newer versions of the software
- To participate in scientific publications of external authors
- To identify possible subjects for Medis patent applications
- When requested, participate in Deep Learning (DL) research and applications following the proper training. In these cases:
 - To develop and enhance automated training and evaluation deep learning (DL) pipelines.
 - To set up, train and validate deep learning (DL) models working on medical images.

The profile we are looking for:

- Extensive experience with image processing, such as image segmentation, registration, etc.
- Experience with C++ and/or Python programming language and relevant toolkits (such as ITK, VTK, NumPy, SciPy, Tensorflow, PyTorch) is an asset
- Extensive experience with Deep learning is an asset
- Experience with medical applications is an asset
- Excellent communication skills, both written and verbal, in English
- Innovator and interested in biomedical technology
- Experience with Agile development is an asset

Personal Skills and competences:

- Committed and pro-active
- Demonstrated innovative attitude
- Accurate, reliable, attention for details
- Strong analytical skills
- Excellent written and spoken English and preferably Dutch
- Enthusiastic team player



What Medis offers you:

- An attractive compensation plan
- International, young and diverse colleagues
- Personal growth and development opportunities
- Contributing to innovative products that make a difference