Mathieu De Craene

Senior Research Engineer | Medical Imaging & Deep Learning

Greater Paris Metropolitan Region
https://www.decraene.org

Interests

Bridging Clinical Needs with AI & Physical Modeling
multidisciplinary research, healthcare innovation, AI in medicine

Skills

- **Medical Imaging**
- **Image Segmentation**
- **Image Registration**
- **Cardiac Ultrasound**
- **C++**
- **Deep Learning**

Awards

JFR Data Challenge Winner
JFR
October 2023

Led a multidisciplinary team to first place in the national challenge on pancreatic cancer detection, analyzing over 1,000 CT images.

Languages

French
Native proficiency

English
Professional working proficiency

Spanish
Professional working proficiency

Summary

Engineer and researcher with 20 years of experience in medical imaging and applied AI. Recognized for expertise in cardiac image analysis, image processing, and algorithm development. Strong publication record (h-index 34) and extensive leadership in European academic–industrial collaborations. Proven ability to deliver innovative solutions bridging healthcare needs and advanced technologies.

Profiles

decraene
Google Scholar

Experience

Dassault Systèmes — **September 2025 - Present**
Senior Research Engineer — Paris Area, France

Philips — **Jan 2012 - Jul 2025**
Senior Data Scientist & Research Scientist — Paris Area, France

Led research initiatives in medical imaging, AI-driven diagnostics, and ultrasound innovation. Collaborated across global teams to deliver clinically impactful solutions.

Universitat Pompeu Fabra — **Aug 2006 - Dec 2011**
Tenure-Track Researcher — Barcelona, Spain

Conducted independent research in medical image analysis and taught undergraduate courses in engineering (maths, programming)

Université catholique de Louvain — **Sep 2002 - Jul 2006**
PhD Researcher — Belgium

Education

Université catholique de Louvain — **2003 - 2006**
Medical Image Registration — PhD
Thesis: Dense deformation estimation for pairwise and multi-subject registration
https://dial.uclouvain.be/pr/boreal/en/object/boreal%3A5028

Projects

Image segmentation

Contributing to the Meditwin project with a focus on advanced image segmentation for digital twin applications in healthcare.

Cardiac Interventional Imaging — **Jan 2024 - Jul 2025**
Pose estimation from interventional X-ray sequences.

Developed advanced algorithms for accurate device tracking during interventions.

Fetal Ultrasound — **2023**
Deep learning for biometric measurement and quality scoring.

Created automated systems for consistent fetal measurement and image quality assessment.

CardioFunXion — **2016-2020**
European Marie Curie project coordinator.
https://www.upf.edu/web/cardiofunxion

Industrial coordinator for a doctoral training network, mentoring four PhD candidates in cardiac imaging research.

Cardiac Ultrasound — **2012-2015**
Validation of 3D speckle tracking methods.
https://team.inria.fr/epione/en/data/straus/

Directed an academic–industrial collaboration to benchmark and validate 3D strain imaging technologies.

Volunteering

LGBT+ Sport Association — **2015 - Present**
Secretary & Board Member

Active board member contributing to inclusion and diversity initiatives in sports.