

Pierre Kibleur

Ph.D., Engineer in CSE

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French nationality • Driving license B



Experience

UGent Center for X-ray Tomography (UGCT), Ghent, Belgium

-Industrial consulting on 3D material analysis, using non-destructive testing to answer intricate R&D questions on quality, product development, and processes. Group promotion at several conferences and seminars. Lecturer on “Advanced applications of deep learning for X-ray CT”

2022–present

-Researcher on the dynamic behavior of fiber-based composite materials, and quantitative image processing. Presenter at 6 international conferences, presentation award at ICTMS2022. Gave training and supervision on precision imaging, deep learning, and robotics

2018–2022

Confinis AG, Geneva, Switzerland

Consulting on the regulatory compliance of medical devices, specifically joint prostheses, in preparation of marketing application dossiers

2018–2018

University of Fribourg, Fribourg, Switzerland

Internship on making a robotic model of the primate arm to control a brain-computer interface

2018–2018

G-therapeutics, Lausanne, Switzerland

Internship programming the Rysen body weight support robot for rehabilitation with Motek Medical

2017–2017

École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland

Teaching assistant providing support in mathematics for a group of 20 second-year physicists

2015–2016

Education

Ghent University, Ghent, Belgium

Ph.D. Bio-science Engineering; thesis on “4D X-ray micro-tomography investigation of water-induced swelling of wood fiberboards”

2018–2022

EPFL, Lausanne, Switzerland

-M.Sc. Computational Science and Engineering; thesis on “Bio-mechanical model of the primates' upper limb: design of stimulation protocols for the recovery of reaching movements in tetraplegia”

2015–2018

-B.Sc. Physics; Erasmus+ exchange at ULB, Brussels

2011–2015

Competencies

Coding: C/C++, Python, Matlab, Bash, shell, CUDA, Basic, C#, LaTeX

Libraries: Pandas, Scipy, scikit-image, OpenCV, TwinCAT, Keras, PyTorch, TensorFlow, numpy

Software: Git, Dragonfly, Avizo, VGStudio Max, Fiji, Abaqus, Solid Works, Fusion 360, Visio

Environments: Linux/Windows, Vim, Atom, Visual Studio, Jupyter, Overleaf, Microsoft Office Suite

Soft skills: Project management, Multidisciplinary collaboration, Creativity, Problem-solving

Role in selected publications (3 out of 24)

Composites Science and Technology: Implemented the deep learning segmentation of 3D aggregates in complex composite fiber materials, doubling the accuracy of other works

2022

Scientific Reports: Exploited the advanced physico-chemical properties of materials and X-rays to optimize the detectability of adhesives embedded in renewable composite materials

2022

International Conference on Intelligent Robots and Systems: Developed a 3D algorithm for the autonomous control and navigation of air/sea-borne robots, which has been cited over 30 times

2017

Languages

English/French: Fluent

Russian/Dutch: Limited proficiency

Hobbies

Competition rowing: twice Belgian champion

Sailing, flute and saxophone