Pierre Kibleur

Ph.D., Engineer

pierre.kibleur@gmail.com • +33 (0)6 09 90 18 77
French nationality • Driving licence B

Experience

UGCT, Ghent, Belgium 2018-2022
Doctoral researcher. Investigation of fibrous materials with X-ray computed tomography. Quantitative image analysis with deep learning and digital image correlation. Structural modeling with FEM. Author of 11 peer-reviewed publications. Presenter at 6 international conferences: recipient of the ICTMS2022 Student Poster Award. Supervisor of 3 M.Sc. theses on precision imaging; deep learning; robotics. Reviewer for Holzforschung and Studies in Conservation

Confinis AG, Geneva, Switzerland 2018
Consulting intern. Assessment of the regulatory compliance of newly developed medical devices

University of Fribourg, Fribourg, Switzerland 2018
Research scientist. Writing a first-author publication following my M.Sc. thesis

GTX medical, Lausanne, Switzerland 2017
Robotics intern. Programming of the Rysen body weight support system for gait rehabilitation. R&D delegate at the Delft University of Technology and Motek Medical in Amsterdam

EPFL, Lausanne, Switzerland 2016
Teaching assistant. Providing support in mathematics for a group of 20 second-year physicists

Education

Ghent University, Ghent, Belgium 2018-2022
Ph.D. Bioscience Engineering; thesis on “4D X-ray micro-tomography investigation of water-induced swelling of wood fiberboards”

EPFL, Lausanne, Switzerland
M.Sc. Computational Science and Engineering; thesis on “Biomechanical 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

Technical skills

Imaging: X-ray CT, dual-energy CT, chemical doping, SEM, SEM-EDX, macro photography
Programming: C/C++, Python, Matlab, Bash, CUDA, Basic, LaTeX
Libraries: Pandas, Scipy, skimage, OpenCV, tikz, TwinCAT, OpenSim, TensorFlow
Software: Dragonfly, Avizo, Fiji, Abaqus, Solid Works, Git
Environments: Linux/Windows, Vim, Atom, Visual Studio, Jupyter, Overleaf
Office: LaTeX, Pack Office, Visio

Selected publications (3/13)

Kibleur, et al.: ”Deep learning segmentation of wood fiber bundles in fiberboards” in Composites Science and Technology 2022

Kibleur, et al.: ”Detecting thin adhesive coatings in wood fiber materials with laboratory-based Dual-Energy Computed Tomography (DECT)” in Scientific Reports 2022

Sinchuk, Kibleur, et al.: ”Geometrical and deep learning approaches for instance segmentation of CFRP fiber bundles in textile composites” in Composite Structures 2021

Languages

English/French: Fluent
Russian/Dutch: Limited proficiency

Hobbies

Competition rowing
Flute and saxophone