

Zaira Manigrasso, PhD

A professional with a background in biomedical engineering and computer science, equipped with extensive coding expertise in image processing context and a wealth of international experiences.

Programming language skills

Python
MATLAB
SQL
C++

Software and tools

ImageJ
OsiriX
Meshmixer
CAD software (i.e., Solidworks)
FE simulations software (i.e., Abaqus)
Docker

Technical skills

Coding
Code debugging
Electronic lab

Soft skills

Public speaking
Supervision
Scientific dissemination

Mother tongue

Italian

Other languages

English (fluent)
Dutch (basics)
German (basics)

Education

Oct 2018 - Dec 2023	<p>PhD researcher <i>Image Processing and Interpretation group, TELIN department, Ghent University, Belgium</i> Doctoral training program of Computer Science Engineering.</p> <p>Main topic: Engaging in research and coding to implement cutting-edge algorithms for analyzing material dynamics based on micro-CT images.</p> <p>Image processing related side projects : image mosaicing; cracks detections; image segmentation.</p> <p>Thesis title: “Novel Digital Volume Correlation Regularization Methods for Challenging Experimental 4D μ-CT Applications.”</p>
Sept 2015 - Feb 2018	<p>Master degree in Biomedical engineering <i>Università di Pisa, Italy</i></p> <p>Main topics: acquisition of biomedical images; image processing theory and practice (i.e., interpolation, filtering, compression, labelling, segmentation, registration and fusion techniques); coding; signal processing theory and practice; machine learning; deep-learning.</p> <p>Thesis title: <i>Mock cardiac pump compatible with magnetic resonance imaging: design, simulation, fabrication.</i></p>
Sept 2012 - Apr 2015	<p>Bachelor degree in Biomedical engineering <i>Università di Pisa, Italy</i></p>

Experiences

Apr 2017 - Feb 2018	<p>Intern student <i>Fondazione Gabriele Monasterio Regione Toscana CNR, Massa, Italy</i></p> <p>Main activity: master thesis - Image segmentation, CAD modelling, FE simulations.</p>
Oct 2017- Dec 2017	<p>Visiting student <i>UCL, London, UK</i></p> <p>Main activity: master thesis - CAD modelling, FE simulations, 3D printing.</p>