ALESSANDRO DELMONTE

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RESUME

Biomedical engineer specialized in image processing and 3D modeling. Currently the engineer of the image-guided surgery research team at the main pediatric hospital of Paris.

WORK EXPERIENCE

IMAG2 at Imagine Institute   March 2018 - Present
Team Engineer & Developer   *Paris, FR*

Lead developer at IMAG2 team in Necker Hospital. Definition and implementation of software plug-ins for the recognition and segmentation of significant anatomical structures. Creator of the IMAG2 diffusion suite and portability work-flow coordinator. Applications in image-guided surgery through the use of 3D models, with focus on visceral surgery.

LTCI, Telecom ParisTech   Sep. 2017 - Feb. 2018
Research Engineer   *Paris, FR*

Internship at IMAGES group in Tlcom ParisTech. Developer of Fuzzy Tracts, software for the automatic segmentation of white matter fiber bundles starting from whole-brain tractograms. Delineation of an innovative method combining clustering algorithms and fuzzy logic approaches. Responsible for coding, strategy definition and result presentation in international conferences.

E.C.A.S. Clinica Cellini e Fornaca   Sep. 2014 - Feb. 2015
Clinical Engineer   *Turin, IT*

Internship in one of the most renowned clinic of the region, with focus on hospital structures management. Consumer satisfaction analysis through reports production and investigation. Update of hospitalization procedures. Digitization of medical devices information. Medical data storage.

COMPLEMENTARY EXPERIENCES

· Master students co-supervision during university courses.   *Sept. 2018 - Present*
· External collaborator in 3D modeling programs and research projects. *Apr. 2018 - Present*
· 3D printing of bio-mechanical parts.   *Nov. 2018 - Present*

EDUCATION

Polytechnic University of Turin, (IT)   *March 2018*
M.S. in Biomedical Engineering - Medical Informatics
Final Grade: 107/110

LANGUAGES

Italian	Mother-tongue	**English**	Full Professional Proficiency
French	Upper-Intermediate Proficiency		

PUBLICATIONS

White Matter Multi-Resolution Segmentation Using Fuzzy Set Theory   *Apr. 2019*
Delmonte A. et al, IEEE International Symposium on Biomedical Imaging
Segmentation of White Matter Tractograms Using Fuzzy Spatial Relations   *Jun. 2018*
Delmonte A. et al, OHBM Annual Meeting

TECHNICAL SKILLS

Experience in Data Science, Image Processing, Scientific Programming, Machine Learning, Pipelines, GUI and Unit Testing.

Computer Languages	Python, Java, C++ (VTK, ITK), Bash, MatLab
Front-End	HTML/CSS, JavaScript, PHP
Version Control	Git (GitHub, GitLab, BitBucket), SVN
Tools	Docker, Vim
OS	System admin for Unix-based environment
Office	LaTeX, Microsoft Office
Medical Softwares	3DSlicer, Freesurfer, FSL, ITK Snap, DTI Studio
Docs	Redaction of technical manuals and software documentation. Software modeling (UML, activities, stakeholder analysis).

OTHER SKILLS

Mathematics	Strong mathematical and physics knowledge. Good foundations of supervised and unsupervised machine learning, classification and statistics algorithms.
Electronics	Excellent electronic knowledge applied in the medical field. Able to understand the operating principles of surgical instrumentation and medical devices.
Signal Processing	Ability to perform measures, compute the associated uncertainty and process the data extracted. Excellent knowledge of medical signal processing techniques.

ADDITIONAL INFORMATION

· Problem solving capabilities. Able to analyze a problem using a structured approach.
· Time management, organizational skills and work ethic.
· Ability to fit in a multicultural environments.