

# Alessandro DELMONTE

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Turin, Italy | October 19, 1992  
ADDRESS: 212, Rue de Tolbiac - 75013 - Paris, France  
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## WORK EXPERIENCE

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<i>Current</i> MAR. 2018	R&D Engineer at IMAGINE INSTITUTE - Paris (FR) <i>MRI Imaging / 3D Modeling</i> 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.
SEP. 2017 - FEB. 2018	Research Engineer at LTCI, TÉLÉCOM PARISTECH - Paris (FR) <i>Diffusion Imaging and Tractography Segmentation</i> Internship at IMAGES group in Télécom 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.
SEP. 2014 - FEB. 2015	Clinical Engineer at E.C.A.S. CLINICA CELLINI E FORNACA - Turin (IT) <i>Management Services</i> 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.

## EDUCATION

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MAR. 2018 Master's Degree in BIOMEDICAL ENGINEERING - 107/110  
Major: Medical Informatics - Polytechnic University of Turin  
Advisors: Prof. Isabelle BLOCH, Prof. Pietro GORI, Prof. Filippo MOLINARI

## LANGUAGES

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ITALIAN	Mother Tongue	ENGLISH	Full Professional Proficiency
		FRENCH	Intermediate Proficiency

## PUBLICATIONS

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MM. YYYY	INSERT HERE PAPER WITH CECILE Delmonte A. Muller C.O. et al, CONF YYYY
APR. 2019	INSERT HERE PAPER WITH CORENTIN Delmonte A. Mercier C. et al, ISBI 2019
JUN. 2018	Segmentation of White Matter Tractograms Using Fuzzy Spatial Relations Delmonte A. et al, OHBM 2018

## SOFTWARE DEVELOPMENT SKILLS

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Programming Languages	<b>PYTHON</b> Deep knowledge of SCIENTIFIC PROGRAMMING, PIPELINES, GUI (QT) MACHINE LEARNING, TESTING and JUPYTER
	<b>MATLAB</b> Data science and IMAGE PROCESSING
	<b>C++</b> Image Processing: VTK, ITK
	<b>JAVA</b>
	<b>BASH</b>
	Foundations of C.
Version Control	GIT, SVN.
Tools	Docker, Code Profilers and Coverage Trackers, Debuggers, IDEs.
Continuous Integration	GitHub, GitLab, Bitbucket, Issue Trackers (Jira, YouTrack), Slack, Trello.
Medical Softwares	3DSLICER, FREESURFER, FSL, ITK SNAP, DTI STUDIO, TRACKVIS.
Others	Redaction of technical manuals and software documentation. Software modeling (UML, activities, stakeholder analysis, ...)

## COMPUTER SKILLS

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OS	Experience in system administration for UNIX-BASED machines. Proficient command line user. Comfortable using any environment.
Office	Expert user of multiple productivity and presentation softwares. ECDL Full in Microsoft OFFICE. $\LaTeX$ .

## OTHER RELEVANT SKILLS

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Acquisition Techniques	MRI (DW-MRI, fMRI), CT, PET
Bioinformatics	BEDTOOLS, SAMTOOLS, BLAST+/BOWTIE, CHIMERASCAN.

## GENERAL AND COMMUNICATION SKILLS

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Problem solving capabilities. Able to analyze a problem using a structured approach. Capable of identifying and finding solutions to complex problems using scientific methods.

Time management, organizational skills and work ethic.

Ability to fit in a multicultural environment. Acquired working in international environment during both professional experiences and school studies.

Ability to interact with people of different domains in the most suited manner. Learned during experiences in hospital structures and multi-disciplinary projects.

## OTHER SKILLS

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**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.

**Sensors:** Ability to perform measures, compute the associated uncertainty and process the data extracted. Excellent knowledge of medical signal processing techniques.