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# Joan Massich

# Research Engineer

This is how I did it Anton. I never saved anything for the swim back. (Gattaca, 1997)

# Experience

Nov. 2017 -

Software engineer for MNE-Python and OpenMEEG, Parietal - INRIA, Parissaclay.

Dec. 2015 - Sep. 2016 Attaché temporaire d'enseignement et de recherche (ATER), Le2i - Laboratorie Electronique, Informatique et Image UMR CNRS 6306 at IUT Dijon,

Dijon.

Postdoctoral fellow, Le2i - Laboratorie Electronique, Informatique et Image UMR CNRS 6306 at IUT Le Creusot, Le Creusot.

Research assistant, ViCOROB - Computer Vision and Robotics group at University of Girona, Girona.

Breast Ultra-Sound imaging, segmentation, stochastic methods,

Research assistant, Applied Vision Laboratory (AVL) at Texas Tech University (TTU), Lubbock.

Software design, data visualization, matlab, acceptance tests, medical imaging.

#### Education

Oct. 2009 - Dec. 2013

#### PhD in Computer Vision.

Universitat de Girona, Girona, Catalonia.

Université de Bourgogne, Le Creusot, France. title: Deformable object segmentation in ultra-sound images.

grade: Unanimity excellent with honors.

#### Erasmus Mundus Master Course on Computer Vision and Robotics (VI-BOT).

Heriot-Watt University, Edinburgh, Scothland.

Universitat de Girona, Girona, Catalonia.

Université de Bourgogne, Le Creusot, France.

Autonomous Robots, Fundamentals on Robotics, Visual Perception, Real-time Image Processing, Scene Segmentation and Interpretation, Software Engineering, Image processing, Digital Signal Processing, Data Mining and Machine Learning, Medical Imaging, Shape Recognition Statistics, Infrared Imagery, Image Analysis.

grade: 8.1 over 10

Sept. 2007 - June 2009

Dec. 2013 - Dec. 2015

Oct. 2009 - Dec. 2013

June 2009 - Oct. 2009

Sept. 2005 - Sept. 2007

#### Computer Science Engineering,

Universitat de Girona, Girona, Catalonia.

Software Engineering, Computer Networks, Compilers, Computer Architecture, Numeric Methods, Economy, Production Systems, Computer Vision, Statistics, User Interfaces,

Security. grade: 7.7 over 10

Sept. 2002 - Sept. 2005

#### Technical Engineering in Computer Systems,

Universitat de Girona, Girona, Catalonia.

Algorithms, Computer Architecture, Electronics, Digital Circuits, Database Systems, Computer Vision, Robotics, Software Engineering, Computer Networks, Operating Systems, Discrete Structures, Probability and Statistics, Digital Logic, Control Systems, VLSI Design, Artificial Intelligence.

grade: 6.9 over 10

## PhD Thesis

title Deformable object segmentation in ultra-sound images.

supervisors Joan Martí and Prof. Fabrice Meriaudeau

description This thesis is devoted to automatic segmentation of breast lesions in ultrasound images, since this task is key for the development of robust Computer Aided Diagnosis (CAD) systems applied to this organ and image modality. The proposed segmentation strategy divides the images into meaningful regions called super-pixels

and regularization.

### Technical Skills

Languages

Programming Python, C++, Matlab

Technologies Git, Travis, appveyor, cirlce, CMake, LATEX, Vim, Emacs

Operating Sytem Windows, Linux (Gentoo)

# Languages

Catalan and Spanish (mother tongue), English (fluent), and French (spoken fluent and written business level)

and labels them using a minimization framework that takes into account training

#### **Awards**

Sept. 2018

Member of the team creator and promoter of underwater robotics workshop for kids, awarded with the Jaume Vicens Vives distinction for the quality of university pedagogy., Barcelona.

Feb. 2016

Best student paper award for, Rastgoo et. al. "Classification of melanoma lesions using sparse coded features and random forests", Rome.

Aug. 2006

Member of the ViCOROB-UDG team: winner of the 2006 SAUC-E (Student Autonomous Underwater Challenge Europe) competition, London.