

James MURE-DUBOIS
rue des Parcs, 67
CH-2000 Neuchâtel
Tel : +41 77 485 54 70
jmuredubois@outlook.com

Born on May 10th 1982
Swiss and french citizen



SOFTWARE ENGINEER, DIGITAL SIGNAL PROCESSING

PHD IN SCIENCE, MICRO- AND NANOTECHNOLOGY

Professional record

- Jan. 2013** – INTERMEC SCANNER TECH. CENTER - TOULOUSE. SOFTWARE ENGINEER.
Jun. 2014 – Image processing aiming at improving 1D and 2D decoding libraries
(18 months) ▷ *Exploring algorithms for high dynamic range images.* ▷ *Setup of a blackbox testing solution.*
- Feb. 2012** – NANYANG TECHNOLOGICAL UNIVERSITY - SINGAPORE. RESEARCH SCIENTIST
Nov. 2012 – IN TEMASEK LABORATORIES RADAR CENTRE.
(10 months) Algorithms for high-resolution SAR imaging from highly unstable platforms
▷ *Motion compensation and autofocus algorithms in the unstable SAR imaging context.*
▷ *High robustness to undesired motion requires dedicated SAR imaging chain.*
- Dec. 2009** – TÉSA (TELECOMMUNICATIONS FOR SPACE AND AERONAUTICS) - TOULOUSE.
Nov. 2011 – RESEARCH SCIENTIST IN THE SIGNAL PROCESSING UNIT.
(2 years) Signal processing algorithms for radar data measured with embedded automotive sensors, for driver assistance applications.
▷ *High resolution applications of synthetic aperture radar and digital beamforming algorithms.* ▷ *Required compliance with stringent automotive industry requirements.*
- 2005-2009** – INSTITUTE OF MICROTECHNOLOGY, (UNI. OF NEUCHÂTEL - EPFL).
(4 years) RESEARCH-ASSISTANT IN THE PATTERN RECOGNITION LABORATORY.
Contributing to various research projects in the lab, involvement in teaching for the pattern recognition and microprocessors lectures.
▷ *Research projects in collaboration with industry (CTI).* ▷ *Mentoring students for semester and diploma projects.*
- 2005** – LOGITECH, FREMONT, CALIFORNIA. INTERN IN THE SYSTEM ENGINEERING
(6 months) DEPARTMENT OF THE WEBCAM DIVISION.
Working on a project aiming to improve audio quality in webcam conversations.
▷ *Audio signal processing.* ▷ *Study taking into account constraints for mass produced devices.*
- 2004** – PAUL SCHERRER INSTITUTE, VILLIGEN - SUISSE. INTERN AT THE LABORATORY
(3 months) OF MICRO ET NANO-TECHNOLOGY (LMN).
Optimization of a setup producing large structures with sub-micron resolutions.
▷ *Work in clean room environment.* ▷ *Laser interference lithography.*

Education

- 2005-2009** – IMT-PARLAB, UNIV. OF NEUCHÂTEL - EPFL. PHD IN SCIENCE.
Contributions to image processing algorithms for advanced 3D vision devices.
▷ *Image processing.* ▷ *Time-of-flight cameras.* ▷ *Real-time network of 3D cameras.* ▷ *Fast filtering for measurement errors reduction.*
- 2000-2005** – UNIVERSITY OF NEUCHÂTEL. MASTER OF SCIENCE IN MICROTECHNOLOGY.
Cum laude.
▷ *Microfabrication.* ▷ *Signal processing.* ▷ *Micro-optics.* ▷ *Material science.*
- 1997-2000** – LYCÉE DENIS-DE-ROUGEMONT, NEUCHÂTEL. SCIENTIFIC BACCALAUREATE.
magna cum laude.

IT skills

- Operating systems : MS Windows (7, 8, XP), Linux (Ubuntu, Debian), Mac OS X
Programmation : Matlab, C, C++, Python, C#, Java, Labview
Development : MS Visual Studio, Eclipse, git, hg, SVN, CVS, ClearCase

Languages

- French : Mother tongue.
English : Fluent (spoken, written).
German : Read, basic redaction, general conversation.