

# Gabriel Urbain

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## LANGUAGES

French  
Native

English  
Fluent. TOEIC LR: 940/990  
(2011). TOEFL IBT: 105/120  
(2014)

Dutch  
Basic

Spanish  
Basic

## SKILLS

### IT

Operating Systems  
Linux • Embedded Linux •  
Windows

Programming  
C • C++ • Matlab • Simulink •  
Python • Java • Bash • VHDL  
• OpenCV • Git •  $\LaTeX$

Embedded Platforms  
X86 • Atmel AVR • TI OMAP3  
• Arduino • BeagleBone

### TECHNICAL

Telecommunications •  
Computer Vision • Robotics •  
Space Systems

## HOBBIES

Campus Activities  
Sailing (2014) • CubeSat  
(2012-2014) • Scuba Diving  
(2013-2014) • Rowing (2013)  
• Winner of a GDF Suez  
scholarship (2012) • Student  
Regional Committee  
(2009-2012) • Board of  
Faculty (2011-2012) •  
Auto-evaluation Commission  
(2011-2012) • Board of  
Libraries (2010-2011)

### Arts

Supaero Jazz Band  
(2012-2014) • Student  
Culture Committee  
(2010-2011) • Jazz Band  
Baudour (2001-2011) •  
Drums • Trumpet • Piano

## EXPERIENCE

### UMONS | RESEARCHER AT THE NUMEDIART INSTITUTE

Since February 2015 | Mons, Belgium

Topic: *Search engine development based on audio similarities for big data collections of a Foley company*

### ROBOTICS

2004 - 2015 | Mons, Belgium

- Administrator of the Non-Profit Association iRobotique (2014, 2015)
- Robot design for a Eurobot Junior competitions (2005, 2006, 2008) and Eurobot (2011, 2013)
- Creativity Award (2006), Belgian Junior Champions Award (2008), 8th European Junior position (2008) ; 7th European position (2013)
- Atmel AVR, OMAP processor and FPGA Programming Classes (2010-2012)

### THALES ALENIA SPACE | RESEARCH AND INNOVATION INTERNSHIP

August - September 2013 | Charleroi, Belgium

Topic: *Feasibility Analysis of an Electro-Mechanical Control System for Ariane Rocket Boosters.*

Supervisor: Prof. Dr. Marc Bekemans.

### UMONS | FACULTÉ POLYTECHNIQUE | RESEARCH INITIATION

July - August 2010 and July - August 2011 | Mons, Belgium

- Topic: *Implementation of C/C++ Libraries in TRNSYS 16.1 for Heat Pump Study.*  
Supervisor: R. Lepore. Energy Cluster (2010)
- Topic: *Semi-Automatic Creation of a 3D Model for the City of Mons.* Supervisor: Prof. Dr. T. Dutoit. IT Cluster (2011)

## EDUCATION

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

#### FINAL MASTER PROJECT AT THE SPACE SYSTEMS LABORATORY

June 2014 - November 2014 | Cambridge, USA

Topic: *Calibration and Fusion of Stereoscopic and Time-of-Flight Cameras for Zero Gravity Targets Inspection.* Supervisor: Dr. Alvar Saenz-Otero. Passed with the highest mention.

### ISAE | SUPAERO

#### MASTER OF SCIENCE IN AEROSPACE ENGINEERING

August 2012 - November 2014 | Toulouse, France

Double Master Degree through T.I.M.E. Network. Major : Space Systems, Telecommunications and Networks.

### UMONS | FACULTÉ POLYTECHNIQUE

#### MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

September 2011 - November 2014 | Mons, Belgium

Option: Electricity - Multimedia et Telecommunications. Graduated with Honors.

#### BACHELOR OF SCIENCE IN ENGINEERING

September 2008 - June 2011 | Mons, Belgium

Graduated with Honors.

## PUBLICATIONS

**INSPECT Sensor Suite for On-Orbit Inspection and Characterization with Extravehicular Activity Spacecraft.** A. Saenz-Otero, D. Steinberg, T. Sheerin, G. Urbain. In: *45th International Conference on Environmental Systems*. 2015 (expected)