Urbain Gabriel

Address
Website
E-mail | Phone

EXPERIENCE

UGENT | PHD STUDENT - RESEARCH ASSISTANT AT THE DATA SCIENCE LAB
Since October 2015 | Ghent, Belgium
Topic: *Brain-inspired CPG Controller Design for Quadruped Robots Locomotion.*
Human Brain Project. Neurorobotics group.

UMONS | RESEARCHER AT THE NUMEDIART INSTITUTE
February - October 2015 | Mons, Belgium
Topic: *Development of a Search Engine Based on Audio Similarities for Large Foley Sound Collections*
Research in partnership with Dame Blanche SA and CETIC. The produced algorithm is currently in the process of patenting.

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 | RESEARCH INITIATION INTERNSHIP
July - August 2011 | Mons, Belgium
Topic: *Semi-Automatic Creation of a 3D Model for the City of Mons.* Supervisor: Prof. Dr. T. Dutoit. IT Cluster

UMONS | RESEARCH INITIATION INTERNSHIP
July - August 2010 | Mons, Belgium
Topic: *Implementation of C/C++ Libraries in TRNSYS 16.1 for Heat Pump Study.* Supervisor: R. Lepore. Energy Cluster

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 trough *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.
D. Steinberg, T. Sheerin, G. Urbain. In: *45th International Conference on Environmental Systems.* 2015

A Semantic and Content-Based Search User Interface for Browsing Large Collections of Foley Sounds. (submitted)
G. Urbain, C. Frisson, A. Moinet, T. Dutoit. In: *Audio Mostly - A conference on interaction with sound.* 2016

WORKSHOPS - CONFERENCES - SYMPOSIUMS

3RD HBP EDUCATION WORKSHOP
January 2016 | Manchester, UK
Lightning talk and poster presentation: *Methodology for Closed-Loop Locomotion Control of a Mouse 3D Model using CPG Models and Reservoir Computing.* G. Urbain

HOBBIES AND ASSOCIATIVE LIFE

IROBOTIQUE | Administrator of the Non-Profit Association
2004 - 2016 | Mons, Belgium

- Design and development of robotic platform for museum guided tours (from 2014)
- Presentation of the association and its projects in different events: Mariemont Cultural Mediation Symposium, Museomix, Open FabLab Mons, Make Wallonia, Business To Museum and Tourism, ... (from 2014)
- 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)

MUSEOMIX BELGIUM | Organisator and Participant
2015 - 2016 | Brussels, Belgium
Organization of a 3-days hackaton to design prototypes for the future of museum mediation in Belgium. Website manager.

ART
Gent Universitair Symphonic Orkest (2016) • Supaero Jazz Band (2012-2014) • Student Culture Committee (2010-2011) • Jazz Band Baudour (2001-2011) • Drums • Trumpet • Piano • Choral music

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)

LANGUAGES

French
Native

English
Fluent. TOEFL IBT: 105/120 (2014)

Dutch
Basic. Currently 5h/week of lessons

Spanish
Basic

SKILLS

IT
Operating Systems | Middleware
Linux • Embedded Linux • Windows • ROS

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

Embedded Platforms
Low-level development on: X86 • Atmel AVR (Arduinos, self-designed boards) • ARM (BeagleBone, RaspberryPI, Odroid) • SpiNNaker

TECHNICAL
Embedded Systems • Image and Audio Processing • Neural Networks • Machine Learning • Robotics • Electronics • Telecommunications • Space Systems