# Gabriel Urbain

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## **EXPERIENCE**

## **UGENT** | PHD STUDENT - RESEARCH ASSISTANT - IDLAB/IMEC Since October 2015 | Ghent, Belgium

Topic: Brain-inspired CPG architectures for robust locomotion learning on quadruped robots.

## **UMONS** | RESEARCHER AT THE NUMEDIART INSTITUTE February - October 2015 | Mons, Belgium

## **FDUCATION**

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY

MASTER PROJECT AT THE SPACE SYSTEMS LABORATORY June 2014 – November 2014 | Cambridge, USA

## 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

## BACHELOR AND MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

September 2008 – November 2014 | Mons, Belgium Major: Multimedia et Telecommunications. Graduated with Honors.

## BIO

I'm a PhD student involved in the neurorobotics branch of the European Human Brain Project. I'm pursuing research on embodiment, brain-inspired neural controllers and reinforcement learning for locomotion with robots.

I've studied engineering both at University of Mons, Belgium and Supaero, France and did my Master thesis at MIT in USA. Among others, I've taken part in projects in computer vision, music information retrieval and space robotics.

I like hiking, playing drums, trumpet and piano and I gladly involve in associations or committees with cultural and educational impact like iRobotique and Museomix where I'm responsible in administration and operations.

## LANGUAGES

French (C2) • English (C1 - TOEFL IBT 105/120 in 2014) • Dutch (B1) • Spanish (A2)

## **PUBLICATIONS**

Morphological Properties of Mass-Spring Networks for Optimal Locomotion Learning. G. Urbain, J. Degrave, B. Carette, F. wyffels and J. Dambre. In *Frontiers in Neurorobotics*. 2017

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

 $INSPECT\ Sensor\ Suite\ for\ On-Orbit\ Inspection\ and\ Characterization\ with\ Extravehicular\ Activity\ Spacecraft.$ 

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

## ASSOCIATIVE LIFE

## **IROBOTIQUE ASSOCIATION** | Administrator and Software Manager

2004 - 2017 | Mons, Belgium

#### MUSEOMIX BELGIUM | ADMINISTRATOR AND ORGANISER

2015 - 2017 | Brussels, Belgium

#### **CAMPUS ACTIVITIES**

Gent Universitair Symphonisch Orkest (2016-2017) • Sailing (2014) • CubeSat (2012-2014) • Scuba Diving (2013-2014) • Supaero Jazz Band (2012-2014) • Rowing (2013) • Student Culture Committee (2010-2011) • President of Regional Student Committee (2009-2012) • Student representative for the board of Faculty (2011-2012) • Student representative for the University Evaluation Commission (2011-2012) • Student representative for the Board of Libraries (2010-2011) • Jazz Band Baudour (2001-2011) • Drums • Trumpet • Piano • Choral music