jonas**degrave**

PHD Researcher

contact

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github.com/317070
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languages

Dutch
mother tongue
English
near-native (C2)
French
professional (C1)
German, Chinese
basic (A2)

programming

I ♥ Python, Java & C
I have **XP** with PHP,
Shell, Javascript, C++,
C#, TeX, ASM,
Redcode, Ruby, Lua,
SQL, Delphi & Basic

platforms

Linux, Theano,
Lasagne, Apache,
PostgreSQL, Drupal,
Django, CSS3, HTML5,
JQuery, MPLab X

experience

2014–Now	**Agency for Innovation by Science and Technology in Flanders**	Ghent University, Belgium

Phd researcher
Developing stable gaits for quadrupedal robots and researching the extent to which you can use the morphology of the robot in order to compute the desired motor signals.

2012–2013	**AMARSi, European Community's FP7**	Ghent University, Belgium

Phd researcher
Developing, testing and debugging both hardware, firmware and software of the compliant quadrupedal robot, 'Oncilla'.

education

2010–2012	**Masters of Science** in Electrical Engineering	Ghent University, Belgium

With a specialization in information and communication technology and a focus on media and machine learning. I graduated on exploring whether a robot learns to run faster when it starts the learning process with an easier morphology.

2011	**Masters of Science** in Informatics	Institut Polytechnique de Grenoble, France

Erasmus experience in order to further specialize in graphics, vision and robotics

2007–2010	**Bachelor of Science** in Electrical Engineering	Ghent University, Belgium

Specialization in communication technology

awards

2015	**Kaggle's National Data Science Bowl**	Oregon State University, USA

Awarded $100,000 for developing the best algorithm to classify images of plankton.

2009	**Marianne De Leenheer Prize**	Ghent University, Belgium

Awarded € 1,250 to promote creativity in math, for solving the Blacksburg Middle School problem.

2007	**First prize Geography Derby of the Low Countries**	Texel, Netherlands

Awarded € 250 on the written test in a competition between the best geography students in Flanders and the Netherlands

2005–2007	**7 times finalist in science Olympiads Flanders**	Brussels, Belgium

Finished 7 times among the top 15 students for the Olympiads in mathematics, chemistry, physics and geography.

publications

I have authored 3 journal articles (of which 2 are under review) and 5 conference papers. I included a selection of my publications underneath. You may find a complete list of my publications on biblio.ugent.be/person/000070398859.

article in peer-reviewed journal

Transfer learning of gaits on a quadrupedal robot
> Jonas Degrave, Michaël Burm, Pieter-Jan Kindermans, Joni Dambre, Francis wyffels
> Adaptive Behavior. Sage, 2015

invited talk

Classifying plankton using Deep Learning
> Jonas Degrave
> IEEE Data Science and Advanced Analytics conference (DSAA), 2015

international peer-reviewed conferences & proceedings

Developing an Embodied Gait on a Compliant Quadrupedal Robot
> Jonas Degrave, Ken Caluwaerts, Joni Dambre, Francis wyffels
> IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2015, Hamburg, Germany

Terrain classification for a quadruped robot
> Jonas Degrave, Robin Van Cauwenbergh, Francis wyffels, Tim Waegeman, Benjamin Schrauwen
> International Conference on Machine Learning and Applications (ICMLA), 2013, Miami, Florida, USA

Comparing trotting and turning strategies on the quadrupedal Oncilla Robot
> Jonas Degrave, Michaël Burm, Tim Waegeman, Francis wyffels, Benjamin Schrauwen
> IEEE International Conference on Robotics and Biomimetics (ROBIO), 2013, Shenzhen, China

achievements

2015	**Large Scale Deep Neural Net artwork**	Trbovlje, Slovenia

Exposition of my artwork at the international new media festival 'Speculum Artium'. The work received critical acclaim from global media such as the New Scientist, The Guardian and Der Spiegel.

2012–2014	**Co-President Pirate Party Belgium**	Belgium

I was co-president of the Belgian section of the Pirate Party. I led the party from nothing to the 2012 and 2014 elections. When I left, the polls gave a voting intention of 1.4%.

interests

professional: robotics, deep learning, reinforcement learning, machine learning, transfer learning, media processing, data mining, software development
personal: politics, the science of cooking, board games, producing music, running