



BERTRAND HIGY

PHD CANDIDATE



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http://bhigy.github.io

LANGUAGES



French	■ ■ ■ ■ ■
English	■ ■ ■ ■ □
Italian	■ ■ ■ ■ □
German	■ ■ □ □ □

PROGRAMMING



Python	■ ■ ■ ■ □
C++	■ ■ ■ □ □
Matlab	■ ■ ■ □ □
Tensorflow	■ ■ ■ ■ □
Pytorch	■ ■ □ □ □
HTK	■ ■ ■ ■ □
Kaldi	■ ■ ■ □ □
ESPnet	■ ■ □ □ □
Git	■ ■ ■ □ □
Vim	■ ■ ■ ■ □
Arduino	■ ■ □ □ □

INTERESTS



Japanese culture, Hiking
Board Games, Books



Education

Professional experience



PhD student, 11/15 - 04/19

Istituto Italiano di Tecnologia, Genoa, Italy

Subject: Spoken command recognition for robotics
Supervisors: Giorgio Metta, Leonardo Badino

Visiting student, 04/18 - 07/18

Centre for Speech Technology Research, Edinburgh, UK

Supervisor: Peter Bell

Research Assistant, 05/15 - 10/15

Istituto Italiano di Tecnologia, Genoa, Italy

Subject: Haptic object recognition for the robot iCub
Supervisor: Lorenzo Natale

Software engineer, 12/10 - 04/15

Abase Europe, Strasbourg, France

Technologies: SAP, ABAP, C#, Java, HTML, Javascript, JQuery

Master degree in Cognitive Sciences, 09/08 - 06/10

Université Lumières, Lyon, France

First in my class

1st year internship under the supervision of Emmanuel Reynaud on
Connectionist modelling of multimodal integration

2nd year internship under the supervision of Salima Hassas on
Collective representations, language and tagging systems

Teaching assistant in Computer Science, 09/09 - 01/10

Université Lumières, Lyon, France

Bachelor degree in Psychology, 09/05 - 06/08

Université Louis Pasteur, Strasbourg, France

Experimental assistant, 01/08 - 04/08

Laboratoire d'Imagerie et Neurosciences Cognitives (LINC), Strasbourg, France

EEG study on sleep and attention

Bachelor degree in Computer Science, 09/03 - 06/06

Université Louis Pasteur, Strasbourg, France

First in my class

Publications



Higy, B., & Bell, P. 2018 “**Few-shot learning with attention-based sequence-to-sequence models**”. <http://arxiv.org/abs/1811.03519>.

Higy, B., Mereta, A., Metta, G., & Badino., L. “**Speech Recognition for the ICub Platform.**” *Frontiers in Robotics and AI* 5 (2018).

Savran, A., Tavarone, R., Higy, B., Badino, L., & Bartolozzi, C. “**Energy and Computation Efficient Audio-Visual Voice Activity Detection Driven by Event-Cameras.**” In *Proceedings of 13th IEEE International Conference on Automatic Face Gesture Recognition*. Xi’an, China, 2018.

Higy, B., Ciliberto, C., Rosasco, L., & Natale., L. “**Combining Sensory Modalities and Exploratory Procedures to Improve Haptic Object Recognition in Robotics.**”. In *IEEE-RAS 16th International Conference on Humanoid Robots (Humanoids)*, 117–24. Cancun, Mexico, 2016.

Training



Introduction to convex optimization, 2018

Taught by Saverio Salzo and Silvia Villa, at University of Genoa, Italy

Barcelona Cognition, Brain and Technology summer school, 2017

in Barcelona, Spain

International Summit and Summer School on Deep Learning 2017

in Bilbao, Spain

Artificial Cognitive Systems, 2017

Taught by David Vernon, at the Italian Institute of Technology

Neurophysiology of the Sensory Systems and Multisensory Integration, 2017

Taught by Monica Gori, at the Italian Institute of Technology

RegML 2016

Regularization Methods for Machine Learning

Taught by Prof. Lorenzo Rosasco, at University of Genoa, Italy

Brains, Minds and Machines Workshop, 2016

in Sestri Levante, Italy

MLCC 2015

A Machine Learning Crash Course

Taught by Prof. Francesca Odone and Lorenzo Rosasco, at University of Genoa, Italy