Valentina Gregori

Curriculum Vitae

Interests

- Data Analysis:
  - Applied machine learning
- Physics of the Atmosphere:
  - Meteorology and climate

Ph.D. Position

09/2016-10/2019 "La Sapienza" University of Rome, Department of Computer Control and Management Engineering in collaboration with Istituto Italiano di Tecnologia (IIT)

Supervisor Prof. Barbara Caputo

Description My main research focuses on the analysis and processing of electromyographic signals, eye tracking data and visual data acquired both from amputated and intact subjects. I apply machine learning techniques to automatically analyze, interpret and classify these data with the goal to improve dexterity of upper limb prostheses.

Education

12/2013-04/2016 **Master's Degree in Theoretical Physics (110/110 cum laude)**
"La Sapienza" University of Rome, Department of Physics
Thesis: Leveraging over Priors for Boosting Control of Prosthetic Hands

09/2010-12/2013 **Bachelor's Degree in Physics (105/110)**
"La Sapienza" University of Rome, Department of Physics
Thesis: Physics of Hadrontherapy

Via G. A. Molfino, 7/34 – Genoa (GE), Italy
(+39) 347 4954921 • gregori.vale@gmail.com

Professional Experience

01/09/2016-15/10/2017 *Assegno di ricerca* at La Sapienza University of Rome for 1st Ph.D. year

16/10/2017-15/10/2019 Fellow position at Istituto Italiano di Tecnologia (IIT) for 2nd and 3rd Ph.D. year

Publications

1. V. Gregori, A. Gijsberts and B. Caputo, "*Adaptive Learning to Speed-Up Control of Prosthetic Hands: a Few Things Everybody Should Know,*" 2017 IEEE 15th International Conference on Rehabilitation Robotics (ICORR).

2. F. Giordaniello, M. Cognolato, M. Graziani, A. Gijsberts, V. Gregori, G. Saetta, A. G. Mittaz Hager, C. Tiengo, F. Bassetto, P. Brugger, B. Caputo, H. Müller and M. Atzori, "*Megane Pro: myo-electricity, visual and gaze tracking data acquisitions to improve hand prosthetics,*" 2017 IEEE 15th International Conference on Rehabilitation Robotics (ICORR).

3. A. Gigli, V. Gregori, M. Cognolato, M. Atzori, B. Caputo, and A. Gijsberts, "*Visual Cues to Improve Myoelectric Control of Upper Limb Prostheses,*" 2018 IEEE 7th International Conference on Biomedical Robotics and Biomechatronics (BioRob).

4. V. Gregori, B. Caputo, and A. Gijsberts, "*The Difficulty of Recognizing Grasps from sEMG during Activities of Daily Living,*" 2018 IEEE 7th International Conference on Biomedical Robotics and Biomechatronics (BioRob).

5. Valentina Gregori, Matteo Cognolato, Gianluca Saetta, Manfredo Atzori, The MeganePro Consortium, and Arjan Gijsberts, "*On the Visuomotor Behavior of Amputees and Able-Bodied People During Grasping,*" 2019 Frontiers in Bioengineering and Biotechnology 7 (2019), p. 316.

6. Matteo Cognolato, Arjan Gijsberts, Valentina Gregori, Gianluca Saetta, Katia Giacomino, Anne-Gabrielle Mittaz Hager, Andrea Gigli, Diego Faccio, Cesare Tiengo, Franco Bassetto, Barbara Caputo, Peter Brugger, Manfredo Atzori, and Henning Müller, "*Gaze, Visual, Myoelectric, and Inertial Data of Grasps for Intelligent Prosthetics*" 2019 Scientific Data (2019).

Computer skills

Programming Scientific programming in Python, Matlab and C

General Document and presentation formatting with LaTeX and Office, experience with Linux and Windows

Languages

Italian Mothertongue

English Fluent

Via G. A. Molfino, 7/34 – Genoa (GE), Italy
(+39) 347 4954921 • gregori.vale@gmail.com