Diego Bianchi

 Pisa, ITALY

orcid.org/0000-0001-7148-1612

Work experience

Research Fellow

The BioRobotics Institute - Brain-Inspired Robotics Laboratory

Scuola Superiore Sant'Anna

Movember 2021 - Ongoing

Pisa, Italy

% https://www.santannapisa.it/en/institute/biorobotics/brair-lab

Currently involved in the EU-funded project Proboscis(Grant agreement no. 863212) whose goal is to develop a new generation of universal robotic manipulators, having no distinction between a soft arm and a gripper. My goal is to develop machine learning-based algorithms and strategies for controlling bio-inspired soft robotics manipulators to achieve different tasks, such as the throwing one.

Education

Master's Degree in Mechanical Engineering

Summa cum laude with honours (GPA 3.93/4.00)

September 2019 - October 2021

♥ Università degli studi dell'Aquila (L'Aquila, Italy)

Field of study: Mechatronic Engineering

Bachelor's Degree in Industrial Engineering

Summa cum laude with honours (GPA 3.87/4.00)

September 2016 - October 2019

Università degli studi dell'Aquila (L'Aquila, Italy)

Field of study: Mechanical Engineering

Advanced training

Visiting Student

The BioRobotics Institute – Brain-Inspired Robotics Laboratory

Scuola Superiore Sant'Anna

March 2021 - October 2021

Pisa, Italy

% https://www.santannapisa.it/en/institute/biorobotics/brair-lab

Achievements/tasks: Experimental activities on a soft robotic manipulator and the development of an AI-based controller to achieve for the first time the throwing task with this kind of robot.

Undergraduate Research Opportunities Programme - UROP

Clean Energy Processes Laboratory

Imperial College London

July 2019 - September 2019

♀ London, United Kingdom

https://www.imperial.ac.uk/clean-energy-processes/

Achievements/tasks: Analytical modelling and optimisation of concentrated solar power (CSP) plants, that allowed to estimate the energy system performance and identify the best working fluid.

National summer school on modern physics

Italian Ministry of education, university and research

July 2015

♀ Udine, Italy

Only 50 Italian students admitted per year. Selection based on merit.

Summer school on experimental sciences

Italian National Institute for Nuclear Physics (INFN)

iii June 2014

Q L'Aquila, Italy

Only 20 students from high schools in the Abruzzo region (Italy) admitted per year. Selection based on merit.

Professional qualifications

Chartered senior industrial engineer Certified LabVIEW Associate Developer **National Instruments** Ordine degli ingegneri dell'Aquila **2019 2022** Complete Python Bootcamp: Go from zero to hero in **European Project Management Certificate** Phyton data **AICA Udemy 2021 #** 2017 **Deep Learning Specialization** First Certificate in English - Grade B (CEFR Level B2) Coursera **Cambridge English** £ 2021 2016 Areas of Interest Design Cobot • BioInspired Robotics • Machine Learning Soft Robots Control • Human-Machine Interaction Languages ● ● ● ● English Italian **Digital and Soft Skills** CATIA Teamwork SolidWorks Problem Solving · Good listener and communicator ANSYS Python • Office Suite MATLAB & Simulink ETFX **Awards** Best mechanical engineering student EDA industries, "Il Sorriso di Filippo" charity and Chamber of Commerce of Rieti Province **2017** L'Aquila, Italy High-performing high school student Sulmona city council **2017** Sulmona, Italy

Member of Albo Nazionale delle Eccellenze

Italian Ministry of Education, University and Research

2016 Italy

Publications and workshops

- Diego Bianchi, Michele Gabrio Antonelli, Andrea Centurelli, Cecilia Laschi and Egidio Falotico. Design and Development of a Controller for a Soft Robot Involved in Throwing Task. Presented at the online symposium with the Shibaura Institute of Technology in September 2021.
- Diego Bianchi, Michele Gabrio Antonelli, Cecilia Laschi and Egidio Falotico. Open-loop control of a soft arm in throwing tasks. Pubblished at ICINCO 2022.

References

- Professor Egidio Falotico, Scuola Superiore Sant'Anna (Pisa, Italy), egidio.falotico@santannapisa.it
- Professor Cecilia Laschi, National University of Singapore (Singapore, Singapore), mpeclc@nus.edu.sg
- Professor Christos Markides, Imperial College London (London, United Kingdom), c.markides@imperial.ac.uk