europass

Diego Bianchi

Nationality: Italian

WORK EXPERIENCE

01/10/2023 – 31/01/2024 Boston, United States

VISITING PHD STUDENT BOSTON UNIVERSITY - DEPARTMENT OF MECHANICAL ENGINEERING (MORPHABLE BIOROBOTICS LABORATORY)

Design a high-speed soft robotic gripper inspired by the chameleon's tongue.

11/2021 – 09/2022 Pontedera, Italy

RESEARCH ASSISTANT SCUOLA SUPERIORE SANT'ANNA, THE BIOROBOTICS INSTITUTE

I was 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.

14/06/2021 – 30/09/2021 Pontedera, Italy

VISITING STUDENT SCUOLA SUPERIORE SANT'ANNA, THE BIOROBOTICS INSTITUTE

Experimental activities on a soft robotic manipulator and development of an AI-based controller.

01/07/2019 – 20/09/2019 London, United Kingdom

UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAMME - UROP IMPERIAL COLLEGE LONDON

Modelling and optimisation of concentrated solar power plants

EDUCATION AND TRAINING

02/09/2022 – CURRENT Pontedera, Italy

PH.D. IN BIOROBOTICS Scuola Superiore Sant'Anna - The BioRobotics Institute(Brain-Inspired Robotics Laboratory)

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

23/09/2019 – 23/10/2021 L'Aquila, Italy

MASTER'S DEGREE IN MECHANICAL ENGINEERING Università degli studi dell'Aquila

Address Palazzo Camponeschi, Piazza Santa Margherita, 2, 67100, L'Aquila, Italy | **Website** https://www.univaq.it/ |

Field of study Mechatronic Engineering | **Final grade** (GPA 3.92/4.00) | **Level in EQF** EQF level 7 |

National classification Laurea Magistrale | **Type of credits** ECTS | **Number of credits** 120 |

Thesis Development of a Machine learning controller for a soft-robot involved in tossing task

21/06/2021

DEEP LEARNING SPECIALIZATION Coursera

Neural Networks and Deep Learning; Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization; Structuring Machine Learning Projects; Convolutional Neural Networks; Sequence Models.

Website https://www.coursera.org/specializations/deep-learning | **Field of study** Deep Learning

05/09/2016 – 05/10/2019 L'Aquila, Italy

BACHELOR'S DEGREE IN INDUSTRIAL ENGINEERING Università degli studi dell'Aquila

Address Palazzo Camponeschi, Piazza Santa Margherita, 2, 67100, L'Aquila, Italy | **Website** https://www.univaq.it/ |

Field of study Mechanical Engineering | **Final grade** summa cum laude (GPA 3.87/4.00) | **Level in EQF** EQF level 6 |

National classification Laurea Triennale | **Type of credits** ECTS | **Number of credits** 180

09/2011 – 07/2016 Sulmona, Italy

SCIENTIFIC HIGH SCHOOL Liceo Scientifico Enrico Fermi

Final grade 100/100 with honours | **Level in EQF** EQF level 4

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Office | CATIA V5/V6 | Phyton programming | MATLAB&Simulink | Solidworks | LaTeX | ANSYS Workbench | WorkingModel | Basic AutoCad | Machine Learning: Keras, TensorFlow

Soft-Skill

Team-work oriented | Organizational and planning skills | Good listener and communicator | Problem Solving

Interests

Soft robotics | Reading | Collaborative robots (cobots) | Photography | Human-Machine interaction

ADDITIONAL INFORMATION

HONOURS AND AWARDS

06/2017

Best mechanical engineering student – EDA industries, "Il Sorriso di Filippo" charity and Chamber of Commerce of Rieti Province

01/2017

High-performing high school student – Sulmona city council

07/2016

Member of Albo Nazionale delle Eccellenze – Italian Ministry of Education, University and Research

07/2015
National summer school on modern physics – Italian Ministry of Education, University and Research Only 50 Italian students admitted per year. Selection based on merit.

06/2014
Summer school on experimental sciences – Italian National Institute for Nuclear Physics (INFN) Only 20 students from high schools in the Abruzzo region (Italy) admitted per year. Selection based on merit.

PUBLICATIONS

Softoss: Learning to throw objects with a soft robot – 2023
IEEE Robotics & Automation Magazine

D Bianchi et al., 2023, IEEE RAM

Learning-Based Inverse Dynamic Controller for Throwing Tasks with a Soft Robotic Arm – 2023
20th International Conference on Informatics in Control, Automation and Robotics

D Bianchi et al., 2023, ICINCO 2023

Policy Adaptation using an Online Regressing Network in a Soft Robotic Arm – 2023
2023 IEEE International Conference on Soft Robotics (RoboSoft)

MS Nazeer et al., 2023, IEEE Robosoft 2023

Open-loop control of a soft arm in throwing tasks – 2022
19th International Conference on Informatics in Control, Automation and Robotics

D Bianchi et al., 2022, ICINCO 2022

CERTIFICATES AND PROFESSIONAL QUALIFICATIONS

13/05/2021
European Project Management Certificate

AICA

30/04/2019
Certified LabVIEW Associate Developer

National Instruments

First Certificate in English - Grade B (CEFR Level B2)

Cambridge English

Complete Python Bootcamp: Go from zero to hero in Phyton data

Udemy

European Computer Driving License (ECDL)

AICA