



Niccolò Pagliarani

● ABOUT MYSELF

Design and Development of Soft Grippers, FEM Modeling of Flexible Structures, Variable Stiffness Technologies, Soft Manipulation, Pneumatic Actuation, Bioinspired Design, Embodied Intelligence

● EDUCATION AND TRAINING

01/10/2021 – CURRENT Pisa

PHD STUDENT Scuola Superiore Sant'Anna

design, FEM modeling, and fabrication of soft robots (grippers and innovative actuators) relying on flexible fluidic actuation, variable stiffness mechanisms (jamming transition systems (layer, fiber, and granular), and bioinspired design

Level in EQF EQF level 8

01/10/2019 – 01/10/2021 Pisa, Italy

MSC DEGREE Scuola Superiore Sant'Anna and University of Pisa

Soft Robotic Technologies, Mechanics of Smart Materials and Structures, Statistic Signal Processing, Data Mining and Neural Networks, Surgical Robotics, Prostheses and Exoskeletons, Robotic Programming

Field of study Bionics Engineering | **Final grade** Cum Laude | **Level in EQF** EQF level 7

BSC DEGREE University of Bologna

Field of study Biomedical Engineering | **Final grade** Cum Laude

● WORK EXPERIENCE

01/06/2024 – 19/12/2024 Cambridge, United States

RESEARCH INTERN HARVARD UNIVERSITY

Soft robotic grasping and manipulation for space applications

01/02/2021 – 01/10/2021 Pisa

MSC THESIS RESEARCH INTERN SCUOLA SUPERIORE SANT'ANNA

Experimental thesis in soft robotics: "Design and development of a variable stiffness mechanism based on LMPAs for a MIS manipulator" Supervisors: Prof. Matteo Cianchetti, Prof. Cecilia Laschi

01/10/2020 – 01/02/2021 Pisa

RESEARCH INTERN SCUOLA SUPERIORE SANT'ANNA

Fabrication and characterization of silicon-based thermochromic tissue-mimicking phantoms for Focused Ultrasound Surgery. Experimental Testing with non-invasive robotic platform HIFUSK, based on the LBR Med KUKA robot and winner of the KUKA Innovation Awards 2020. Supervisors: Prof. Arianna Menciassi

01/04/2019 – 01/06/2019 Cesena, Italy

BSC THESIS RESEARCH INTERN BUFALINI HOSPITAL, CARDIOVASCULAR SURGERY DEPARTMENT

Experimental thesis in clinical engineering: "New high-resolution mapping catheters for the study of atrial fibrillation" Supervisors: Prof. Cristiana Corsi, Dr. Paolo Sabbatani

01/03/2022 – CURRENT Pisa

UNIVERSITY TEACHING ASSISTANT SCUOLA SUPERIORE SANT'ANNA

MSc course in Bionics Engineering, Soft Robotic Technologies

● **CONFERENCES & SEMINARS**

01/08/2022 – 31/08/2022 TU DELFT, Netherlands

Summer School on Soft Robotics

First Prize in Grasping Challenge

14/04/2023 – 18/04/2023 Singapore

IEEE RoboSoft23-Poster Presentation

14/04/2024 – 18/04/2024 San Diego, USA

IEEE RoboSoft24-Oral Presentation

12/05/2024 – 15/05/2024 Tokyo, Japan

IEEE ICRA24-Workshop Organizer

14/04/2023 – 18/04/2023 San Diego, USA

IEEE RoboSoft24-Invited Speaker

Variable stiffness technologies

13/03/2024 – 18/03/2024 Rimini, Italy

ERF24-Invited Speaker

Soft robotics for gentle harvesting

10/11/2023 – 15/11/2023 Pisa, Italy

IEEE Agrimetrofor 2023-Oral Presentation

● **DIGITAL SKILLS**

Office Package (Word, Excel, PowerPoint) | programming: Python, MATLAB and SQL | Excellent knowledge of CATIA and SOLIDWORKS CAD package. | Ansys Workbench, Ansys Fluent, Ansys (FEA)

27/08/24

Boston,USA