



Filippo Zoffoli

Home: Via Duca degli Abruzzi 39z, 47922 RIMINI (RN) BOLOGNA (BO) **Mobile:** 3662963596 **Address(es) 2:** Via Zannoni 45/2, 40134 **E-mail:** filippo.zoffoli31@gmail.com

Gender: Male | **Date of birth:** Dec 13 1998 | **Nationality:** Italy

PREFERRED JOB

Mechanical engineer R&D

WORK EXPERIENCE

[02/2023 - 06/2023]

Didactic Tutor

Università di Bologna, Umberto Terracini 24 - BOLOGNA (BO) Italy

Company sector: R&D and patents

Business or sector: computer science, data processing and acquisition

Main activities and responsibilities: Didactic tutor for the Robotics and Mechatronics Laboratory. Hardware realization of test benches for educational use, including Industrial PC, analog and digital inputs/outputs, and servo-controlled axis. Teaching of software development for industrial automation.

[11/2022 - 02/2023]

Research fellow

Alma Mater Studiorum - Università di Bologna, Umberto Terracini 24 - BOLOGNA (BO) Italy

Company sector: R&D and patents

Business or sector: computer science, data processing and acquisition

Main activities and responsibilities: Study of feedback control with stability demonstration for Underactuated Cable-Driven Parallel Robots. Performance analysis of Hybrid-Controlled Overconstrained Cable-Driven Parallel Robots. Design optimization. Self-calibration of Cable-Driven Parallel Robots.

[04/2022 - 09/2022]

Intern

Alma Mater Studiorum - Università di Bologna, Umberto Terracini 24 - BOLOGNA (BO) Italy

Company sector: R&D and patents

Business or sector: education, training, research and development

Main activities and responsibilities: Bibliographical study, research and development of nonlinear control systems in robotics field. During the internship I learned the necessary abilities to the development, the simulation, and the implementation of a position control for an Underactuated Cable-Driven Parallel Robot.

Acquired skills and achieved objectives: The acquired skills are:

- dynamic system analysis;
- control law development;
- synthesis of regulators;
- stability analysis;
- use of advanced control: sliding mode control, passivity based control;
- forward dynamics simulation in MATLAB environment;
- experimentation with prototype, with regulator implementation in RTLinux.

[01/2020 - 11/2021]

Intern

Alma Mater Studiorum - Università di Bologna, Umberto Terracini 28 - BOLOGNA (BO) Italy

Company sector: Engineering and design

Main activities and responsibilities: study and functional design of an automatic machine for packaging reusable coffee pods

Acquired skills and achieved objectives: Patent analytical study, state-of-the-art study, development of a concept design, functional design, kinematic synthesis through numerical computing environment, CAD modeling and geometric simulation, prototyping.

[07/2021 - 09/2021]

life guard

Lido San Giuliano S.R.L., Viale Ortigara - RIMINI (RN) Italy

Company sector: Customer service

Business or sector: tourism

Main activities and responsibilities: Sales assistance, plant maintenance and service provision.

Acquired skills and achieved objectives: Team management, compliance with deadlines, work organization.

[06/2017 - 09/2017]

life guard

Bagno Nino 31 , Lungomare Claudio Tintori - RIMINI (RN) Italy

Company sector: Customer service

Business or sector: tourism

Main activities and responsibilities: Sales assistance, plant maintenance and service provision.

Acquired skills and achieved objectives: Team working, ability to work under stress, direct interfacing and relationships with the customer.

EDUCATION AND TRAINING

[2023 - 2026]

PhD course in Mechanics and Advanced Engineering Sciences

Alma Mater Studiorum - Università di Bologna

Town: BOLOGNA

EQF level: 8

NQF level: Doctor of Philosophy (Ph.D.)

Principal subjects/occupational skills covered:

Reconfigurable Cable-Driven Parallel Robots for automated façade operations

[2020 - 2022]

Master's Degree Course in Mechanical Engineering

Alma Mater Studiorum - Università di Bologna

Town: BOLOGNA

2nd level degree in Mechanical engineering

Final degree mark: 110/110 cum laude

EQF level: 7

NQF level: 2nd cycle degree/Master of Science (2 years)

Dissertation/thesis title: Feedback Control for Underactuated Cable-Driven Parallel Robots

Principal subjects/occupational skills covered:

Automation mechanics and robotics, fundamentals and modeling of mechanical design, fundamentals of fluid machines, fundamentals of mechanical systems.

[2017 - 2020]

Bachelor's Degree in Mechanical Engineering

Alma Mater Studiorum - Università di Bologna

Town: BOLOGNA

1st level degree in Ingegneria industriale

Final degree mark: 106/110

EQF level: 6

NQF level: 1st cycle degree/Bachelor (3 years)

Dissertation/thesis title: Design of a portable coffee press

LANGUAGE SKILLS

Other language(s)

English

LISTENING: C1 **READING:** C1 **WRITING:** C1

SPOKEN INTERACTION: C1 **SPOKEN PRODUCTION:** C1

Spanish

LISTENING: A1 **READING:** A1 **WRITING:** A1

SPOKEN INTERACTION: A1 **SPOKEN PRODUCTION:** A1

Diploma(s) or certificate(s)

English: IELTS certificate - British Council, 26 01 2022 - European level: C1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user

Common European Framework of Reference for Languages

OTHER SKILLS

Communication skills

Good ability to draw up reports;

Good ability to summarize the work done;

Good ability to present the work done;
These skills are also the result of the different group activities carried out in the university laboratories, in particular in the Automatic Machines and Robot Laboratory.

Organisational / managerial skills

Good ability to define objectives and planning;
Excellent willingness to exchange information and collaborate with colleagues, even from different fields e.g. electronic and informatics.

DIGITAL COMPETENCES

SELF-ASSESSMENT				
INFORMATION AND DATA LITERACY	COMMUNICATION AND COLLABORATION	DIGITAL CONTENT CREATION	SAFETY	PROBLEM SOLVING
Proficient user	Independent user	Independent user	Independent user	Proficient user

Digital competences - Self-assessment grid

Basic digital competence:

OFFICE AUTOMATION

Office Suite: (Highly Specialised) | **Presentation Software:** (Highly Specialised) | **Spreadsheets:** (Advanced) | **Web Browser:** (Highly Specialised) | **Word Processors:** (Highly Specialised)

APPLICATION SOFTWARE

CAD - Assisted Design: (Highly Specialised)

COMPUTER PROGRAMMING

Programming languages: C (Advanced) , C++ (Advanced) , MATLAB (Intermediate) , Python (Intermediate)

DRIVING LICENCE

Driving licence category B

ADDITIONAL INFORMATION

My interests are not limited to technical fields of engineering but I am also fascinated by the theoretical, physical and mathematical side of the phenomena that surround us.

In my journey of personal growth, the Scouting path in AGESCI has had a significant impact on my vision of the world and on the ability to engage with others. Thanks to Scouts I had the opportunity to volunteer and to come into contact with different realities compared to everyday life. I have also developed an admiration for nature that makes me sensitive to green issues and particularly stimulates me in their development.

For 7 years I had practiced swimming at a non-competitive level and for 5 years I had played in the Rimini team of Ultimate Frisbee with which I also participated in international tournaments. I consider sport a discipline relevant for the improvement in the general well-being of the individual, therefore I continue to practice sport regularly.