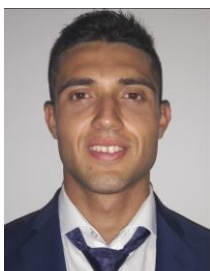


PERSONAL INFORMATION

Roberto Francesco Pitzalis



 Via Pratola 3, 19037, Santo Stefano di Magra (SP), Italy

 +393464946473

 [roberto.pitzalis.f@gmail.com](mailto:roberto.pitzalis.f@gmail.com)

 /roberto-pitzalis-f/

 roberto francesco pitzalis

Sex Male | Date of birth 08/07/1995 Nationality Italian

PREFERRED JOB POSITION

Mechanical Engineer (Automation and Mechatronics area)

WORK EXPERIENCE

September 2021 to date



**Mechanical engineer, PhD student**

**ADVR-Advanced Robotic Research Line, Istituto Italiano di Tecnologia**

Via San Quirico, 19D, 16163, Genova, Italy

[Advanced Robotics | Home \(iit.it\)](http://www.iit.it)

Development of novel wearable robotic components and technologies. Mainly focused on exoskeletons for human augmentation and rehabilitation.

Robotics and human interaction

August 2020 to September 2021



**Mechanical engineer**

**IGM Srl, Electromechanical & Electronics Systems**

Via Trieste, 22, 19020 Follo (SP)

<https://www.igm-online.it/>

Research and development of new electromechanical solutions for railway applications, in particular brake and traction master controller. Drawn up technical specifications, operative procedures, bills of materials.

Railway, space and defence

October 2019 to March 2020



**Research Internship**

**EPFL-LMTS, Soft Transducers Laboratory, Ecole Polytechnique Fédérale de Lausanne**

Rue de la Maladière 71b, CP 526, CH-2002 Neuchâtel, Switzerland

<https://www.epfl.ch/labs/lmts/>

ElectroHydroDynamics pumps design optimization to increase performance in terms of hydraulic power density, pressure and flow rate.

Advanced Manufacturing Systems and Mechatronics

May 2017 to July 2017



**Mechanical Engineer Internship**

**Mectron S.p.A,**

Rue Loreto 15A, 16042 Carasco (GE), Italy.

<https://mectron.it/>

Optimization tests of pre-stress for piezoelectric transducers used in the medical field.

Medical and dental surgical field.

EDUCATION AND TRAINING

November 2021 to date



ISTITUTO ITALIANO DI TECNOLOGIA

UNIVERSITÀ DEGLI STUDI DI GENOVA

September 2017 to March 2020



UNIVERSITÀ DEGLI STUDI DI GENOVA

**Ph.D student in Mechanical Engineering**

Research, design and development of new solutions for human assistance. In particular exoskeletons for occupational and industrial purposes. Under the project INAIL-Esoscheletro Collaborativo, I have been designing a novel exoskeleton for human wrist assistance.

**Master of science degree in Mechanical Engineering-Design and Production Mechatronics-LM33; 110/110 cum laude**

**University of Genoa, Polytechnic School**

Via all'Opera Pia, 15, 16145, Genova (GE), Italy

[www.meccanica.unige.it](http://www.meccanica.unige.it)

September 2014 to July 2017



UNIVERSITÀ DEGLI STUDI  
DI GENOVA

September 2009 to July 2014

**Bachelor of science degree in Mechanical Engineering**-Automation and Mechatronics-CL9; 110/110 cum laude

**University of Genoa**, Polytechnic School  
Via all'Opera Pia, 15, 16145, Genova (GE), Italy

[www.meccanica.unige.it](http://www.meccanica.unige.it)

**Scientific-Technological High School Diploma**. Final grade obtained: 100/100

**I.I.S "G. Capellini-Sauro "**

Rue Giacomo Doria 2 (La Spezia)

[www.capellinisauro.gov.it](http://www.capellinisauro.gov.it)

**PROJECTS**

- 2021 to date, *Esoscheletro Collaborativo 2 (EC2)*, IIT research initiative funded by INAIL;
- 2011-2012, Underwater wire-guided R.O.V - Project SeaPerch.

**PUBLICATIONS**

- 2023 – Pitzalis, R. F., Park, D., Caldwell, D. G., Berselli, G., & Ortiz, J. (2023). *State of the Art in Wearable Wrist Exoskeletons Part I: Background Needs and Design Requirements*. *Machines*, 11(4), 458.
- 2022 - Pettinato, S., Pitzalis, R. F., Ortiz, J., & Berselli, G (2022, September). *Modeling of Cutting Operations for Robotic Surgery Using CAE Tools*. In *Advances on Mechanics, Design Engineering and Manufacturing IV: Proceedings of the International Joint Conference on Mechanics, Design Engineering & Advanced Manufacturing, JCM 2022, June 1-3, 2022, Ischia, Italy (pp. 192-203)*. Cham: Springer International Publishing.

**HONOURS & AWARDS**

- 2022, Best Young Research Paper Award – JCM Conference
- 2020, Master thesis award in “Mechatronics for Industry 4.0” promoted by Lions Club La Spezia host.
- 2017-2018, Scholarship - Top 8 University students, Mechanical Engineering Department (DIME)
- 2016-2017, Scholarship - Top 8 University students, Mechanical Engineering Department (DIME)

**PERSONAL SKILLS**

Mother tongue(s)

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2-Upper Intermediate	B2-Upper Intermediate	B2-Upper Intermediate	B2-Upper Intermediate	B2-Upper Intermediate
French	A2-Basic user	A2-Basic user	A2-Basic user	A2-Basic user	A2-Basic user

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

**Communication skills**

- Good communication skills gained through my experience as student and worker;
- Capability to listen and interact on group activities;
- Open minded, embracing challenges and innovation;

**Organisational / managerial skills**

- Autonomy and problem solving gained through work and research experiences;
- Leadership gained in leading small project at University;
- Excellent schedule skills, well organized and keen on details;

**Computer skills**

- 3D CAD software (PTC-Creo, Catia V5, AutoCAD 2019);
- MATLAB/Simulink/Simscape;
- C, C++ programming skills;
- LabVIEW;
- Graphics (basis): Photoshop, Illustrator, InDesign, Inkscape
- Good command of Microsoft Office™ tools;

- Other skills
- MEMS fabrication in Clean Room environment;
  - Rapid prototyping using 3D printer, laser cutting and engraving;
  - Biomechanical sensors use and integration (XSens, EMG, ECG);
  - Scanner 3D *Sense*;
  - Laboratory instrumentation: tin soldering iron, voltmeter, impedance meter, oscilloscope, HV-power supplies, fume-hood, optical microscopes.

- Driving licence
- A1, B

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#### ADDITIONAL INFORMATION

##### Memberships

- Italian register of engineers.

##### References

- IIT, Researcher Jesús Ortiz, [jesus.ortiz@iit.it](mailto:jesus.ortiz@iit.it)
- Unige, Prof. Giovanni Berselli, [giovanni.berselli@unige.it](mailto:giovanni.berselli@unige.it)
- EPFL, Prof. Herbert Shea, [herbert.shea@epfl.ch](mailto:herbert.shea@epfl.ch)

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#### ANNEXES

*I authorize the use of my personal data pursuant to Legislative Decree of 30th June 2003, n. 196 "Code concerning the protection of personal data" and the GDPR (EU Regulation 2016/679).*

- Copies of degrees qualifications;
- Certificate of RAMS analysis course (26h)
- Certificate of attendance at English Course level C1 (50h) at iH Newcastle-Upon-Tyne (UK);
- Certificate of attendance at the course Business English;

##### Signature

