



curriculum vitae

PERSONAL INFORMATION

Surname	Fortuna
Name	Andrea
Address	Via del Santuario 206, 65125, Pescara (PE), Italy
Telephone	339 4358244
E-mail	andrea.fortuna@polimi.it

Nationality	Italian
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Date of birth	27/02/1998
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Education and training

• Date (from – to)	September 2019 – April 2022
• Name and type of organisation providing education and training	Politecnico of Milan, University
Duration of the program of study	2 Years
• Principal subjects/occupational skills covered	BIOENGINEERING – Medical Robotics course (27/30), Neuroengineering course (25/30), Neural Networks, Model Identification and Machine Learning (26/30), Biomedical Signal Processing course (25/30), Sensors Systems course (27/30), Biomedical Electronics course (27/30), Biomedical Imaging and Computer Aided Surgery course (29/30), Linear Algebra and Statistics
• Title of qualification awarded	Master's degree in Biomedical Engineering
Final mark obtained	106/110

• Date (from – to)	October 2016 – September 2019
• Name and type of organisation providing education and training	Politecnico of Milan, University
Duration of the program of study	3 Years
• Principal subjects/occupational skills covered	BIOENGINEERING
• Title of qualification awarded	Bachelor's degree in Biomedical Engineering
Final mark obtained	101/110

graduation thesis

Title	Kinematic model of steerable catheter for structural intervention cardiology
Language	English
Supervisor	Prof.ssa Elena de Momi
Thesis Summary	In the last years minimally invasive catheter-based approaches are gaining in importance for the

	treatment of patient who cannot be subject to conventional therapy due to high risks. ARTERY European project offers a fully immersive augmented reality interface by which the operator will monitor the intravascular path of the catheter with no need for radiation-based imaging. The operator will define the catheter target pose and the aim of this thesis is to develop a kinematic model of the catheter, considering its constraints, in order to translate the surgeon input into a set of actions to be autonomously performed by the catheter to reach the desired pose.
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publications and articles submitted

Author(s) and title	Andrea Fortuna, Mattia Magro, Angela Peloso, Alice Segato and Elena de Momi: "Inverse Reinforcement Learning algorithm for intra-vascular and intra-cardiac catheter's navigation in Minimally Invasive Surgery"
Language	English
Publication place	I-RIM 3D 2022: Conferenza Italiana di Robotica e Machine Intelligenti https://drive.google.com/file/d/1iutQhmJvZSJ66qNOPzSaHrjts-QtOp3d/view?usp=sharing
Date of publication	Submitted

Author(s) and title	Valentina Corbetta, Alice Segato, Andrea Fortuna, Tommaso Magni, Mattia Magro, Xiu Zhang and Elena de Momi: "Towards an autonomous robotic platform for percutaneous procedures"
Language	English
Publication place	CRAS2022: Conference on New Technologies for Computer and Robot Assisted Surgery https://drive.google.com/file/d/1hWtPGsRhJR_5MNUliXx2lcKwJ7MJvpVO/view?usp=sharing
Date of publication	Accepted, Conference on 27/04/2022

Author(s) and title	Xiu Zhang, Maria Chiara Palumbo, Francesca Perico, Mattia Magro, Andrea Fortuna, Tommaso Magni, Emiliano Votta, Alice Segato and Elena de Momi: "Robotic Actuation and Control of A Catheter for Structural Intervention Cardiology"
Language	English
Publication place	IROS2022: International Conference On Intelligent robots and System https://drive.google.com/file/d/10pyyf0PwFARLDNp010DxrfMT7FVqtX8T/view
Date of publication	Accepted, Conference on 23-27/10/2022

Author(s) and title	A.Fortuna, M. Magro, X. Zhang, M.C. Palumbo, E.Votta, E. de Momi and A.Segato: "Toward Steerable Needles Autonomous Motion for Mitral Valve Repair"
Language	English
Publication place	ICRA-Workshop-Human-centered Autonomy in Medical Robotics https://drive.google.com/file/d/1jkgwKOGH-rq69HRUjx8ljDM8NKkaDIFB/view?usp=sharing
Date of publication	Accepted, Conference on 23/05/2022

certifications

Certifications of language knowledge	2019 – TOEIC (B2)
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Work experience, stages, studies abroad

• Date (from – to)	June 2022 – present
• Name and address of firm/university	Extracurricular internship at Electronic Information and Bioengineering Department (DEIB), Politecnico di Milano
• Main activities and responsibilities	The work is developed under the supervision of Prof.ssa Elena De Momi and Prof. Emiliano Votta at Neuroengineering and Medical Robotics Laboratory (NearLab). I am focusing my research on Path Planning for steerable catheters using Inverse Reinforcement Learning and on Kinematic Modeling of soft robot

Personal skills and competences
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Mother tongue	Italian
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Other language(s)

	English
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• reading	excellent
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• writing	good
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• speaking	good
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Social skills and competences	Strong willingness to learn and propension to team working, problem solving, flexibility, good skills in public speaking, always ready to question myself and have constructive comparisons with other people, dedication to work and a sense of duty.
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Organisational skills and competences	I've been the captain of my football team for 5 years developing leadership skills aimed at collective success through teamwork.
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Technical skills and competences	Programming in the principal languages: C, C++, Python, Matlab Good knowledge of Unity simulation environment Good knowledge of Linux operating system and ROS Programming for Arduino UNO board
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Artistic skills and competences	Music is a fundamental part of my daily life and I love playing acoustic guitar
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Other skills and competences	I am a sports fan who loves challenges. I have practiced competitive football and competitive swimming.
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