INGRID TOMBINI

Profile

I am an adaptable and diligent individual passionate about cross-cultural collaboration and innovation.
Currently enrolled in a Ph.D. on "Robotics Machine Vision for increasing Safety and Accuracy of a Spinal Discectomy" at the Department of Electronics, Information and Bioengineering (DEIB) of Politecnico di Milano, in collaboration with Stryker.

Contact details

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+39 3347700974
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26/05/1999
Bergamo (Italy)

Language Skills

Italian (native),
English (proficient),
Spanish (intermediate)

Skills

- C, C#, Python
- Matlab, Unity, 3D Slicer
- MS Word, Excel, PowerPoint, Access
- Public communication and team collaboration

Education and Training

Philosophiae Doctor, (Ph.D)
Politecnico di Milano, NEARLab Medical Robotics Section.
◇ Topic: Robotics Machine Vision for increasing Safety and Accuracy of a Spinal Discectomy **Dec 2024–pres.**

Master's Degree in Biomedical Engineering (BTE)
Politecnico di Milano. **Mar 2022–Dec 2024**
◇ Thesis title: Development and Evaluation of a Mixed Reality Training System for Transcatheter Edge-to-Edge Repair (TEER) Procedure

Bachelor's Degree in Biomedical Engineering
Università degli Studi di Pavia. **Sept 2018–Dec 2021**
◇ Thesis title: LIVER-ON-A-CHIP: Modelli Microfluidici Per Lo Studio Di Tossicità

Language High School Diploma
Liceo Linguistico Giovanni Falcone. **Sept 2013–Jul 2018**
◇ English, Spanish, Arabic grammar and literature.

Work Experience

Emergency Medical Training at *Centro Sportivo Italiano (Bergamo)*
◇ I instruct Basic Life Support and Defibrillation (BLSD) courses, teaching CPR and AED use across Bergamo. **Jan 2022–pres.**

Certifications

TOEIC *English* **Dec 2021**
◇ 910/990

DELE *Spanish* **Aug 2017**
◇ B2

Projects

AUGMENTED REALITY IN RADIOTHERAPY
Development of an augmented reality tool for 3D visualization of lesions and treatment plans, improving radiotherapy precision.
◇ Unity
◇ HoloLens 2

BREATHING PARAMETER MONITOR
Designed a device using an NTC thermistor to measure respiratory rate and detect apnoea, featuring a real-time graphical interface and alarm system.
◇ Arduino
◇ Processing

MOTOR BEHAVIOUR ANALYSIS AND VIRTUAL MODELLING
Developed a model to simulate movement and analyze tendon-muscle length variations using marker-based motion capture.
◇ OpenSim