

CHIARA LENA

BIOMEDICAL ENGINEER

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EXPERIENCE

PhD Student

Politecnico di Milano - NearLab

November 2022 – Today

Milan, Italy

The topic is 'Novel endoscopes for real-time diagnostics'. The research is focused on deep learning and computer vision applications for smart endoscopic techniques in advanced colonoscopy imaging.

Extracurricular Internship

Politecnico di Milano

September 2022 – October 2022

Milan, Italy

The internship focused on computer vision applications for colonoscopy imaging techniques.

EDUCATION

Master's Degree in Biomedical Engineering (BIF-Information Bioengineering)

Mark 110/110

Politecnico di Milano

April 2022

Milan, Italy

Bachelor Degree in Computer Science Engineering

Mark 94/110

Politecnico di Milano sede di Cremona

September 2019

Cremona, Italy

PUBLICATIONS

Sophia Bano et al., *FetReg2021: A Challenge on Placental Vessel Segmentation and Registration in Fetoscopy*, June 2022, DOI: 10.48550/arXiv.2206.12512., SUBMITTED TO *Medical Image Analysis*

Alessandro Casella, Chiara Lena, Sara Moccia, Dario Paladini, Elena De Momi and Leonardo S. Mattos, *Towards a navigation framework for fetoscopy*, 2022, SUBMITTED TO *International Journal of Computer Assisted Radiology and Surgery (IJCARS)*

THESIS AND UNIVERSITY PROJECTS

Towards Learning based SLAM Framework for Occlusion Recovery and Mosaicking in Fetoscopy, Advisor: Professor Elena De Momi

Master Thesis

FETREG: Placental Vessel Segmentation and Registration in Fetoscopy Challenge, MICCAI 2021

Challenge

In-vivo Evaluation of Deep Sequential Mosaicking in Fetoscopy, Course of *Medical Robotics and Computer-Aided Surgery Laboratory*

Project

SPECIALIZATION

Artificial Intelligence

Computer Vision

Imaging

Machine Learning

Deep learning

Neural Networks

PROGRAMMING

Programming Languages

Python, Java, MATLAB

IDE and Tools

Pycharm, IntelliJ, GitHub, Eclipse

Libraries

Pytorch, Kornia, Numpy, Opencv, Pandas, Matplotlib, Scikit-learn, Keras

LANGUAGES

Italian



English



English exams taken:

- KET in 2008
- PET in 2011
- FCE in 2013 (mark B)
- TOEIC in 2019 (mark 980/990)

INTERESTS

- Photography
- Travels
- Film and TV Series
- Reading

Image Super Resolution for Gaussian Noise Removal, Course of
Neuroengineering

Project

Software development from board game 'Lorenzo il Magnifico',
Advisors: Professor Luciano Baresi, Professor Alessandro Campi

Bachelor Project