

Francesca Fati

Researcher in Biomedical Engineering

Milan, Italy

Date of birth: 27th October 1997



About me

I am a passionate and dedicated researcher in Biomedical Engineering, currently working on Explainable Artificial Intelligent algorithms for assisting Ovarian Cancer treatment.

I regard myself smiling, respectful, ambitious and fast-learner.

Outside of work, I am strongly passionate about sport and travelling, always searching for new fast-paced experiences.

Contacts

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https://github.com/FrancescaFati

Skills

Digital

Programming/IT: Python, C++, C, MATLAB, Git, JavaScript

AI: PyTorch, TensorFlow, Keras, SciKit

Engineering: ROS

Hardware: Microcontrollers

Office: LaTeX, Microsoft Office Suite

Language

Italian: Native speaker

English: TOIEC Level B2, 2020.

This CV was last updated on September 23th 2024.

I authorize the processing of personal data according to EU Regulation 679/2016 or according to the reader's local regulations if not in the EU.

Clicking will open a research paper
Clicking will open my github profile

Working Experience

Collaborator in the Division of Surgical Gynecology IEO

November 2023 - in progress | European Institute of Oncology (IEO) | Milan, IT
Project: "Under-XAI" - Understanding Ovarian Cancer initiation and progression thorough explainable AI. Project code: PNRR-MAD-2022-12376574.

Webpage: <https://nearlab.polimi.it/underxai/>

Internship at NeuroEngineering and Medical Robotics Laboratory

June 2023 - October 2023 | Politecnico di Milano | Department of Electronics, Information and Bioengineering | Milan, IT

Website: <https://nearlab.polimi.it/medical/>

Au pair

January 2020 - June 2020 | St. Albans, London, UK

Education

Phd in Biomedical Engineering

September 2023 - in progress | Politecnico di Milano

MSc in Biomedical Engineering, 110/110 cum laude

September 2020 - May 2023 | Politecnico di Milano, IT

Thesis: "Hybrid Model for a tendon-driven steerable catheter for minimally invasive Mitral valve repair " at NEARLab.

Supervisor: Prof. Elena De Momi.

BSc in Biomedical Engineering, 110/110

September 2016 - October 2019 | Università di Genova, IT

Thesis: "Algorithm for clustering analysis in neural networks".

Supervisor: Prof. Marco Storage.

Publications

Deep learning-based tumor resectability prediction model in patients with Ovarian Cancer: a preliminary evaluation

Fati F., Rosanu M., De Vitis L., Schivardi G., Multinu F., Veraldi R., Zaffino P., Cosentino C., Spadea M., De Momi E.
Ital-IA 2024. 2024.

Optimizing Heart Valve Surgery with Model-Free Catheter Control

Bicchi A., Fati F., Quacquarelli M., Votta E., De Momi E.
Hamlyn Symposium on Medical Robotics 2023.

Reproducing a decision-making network in a virtual visual discrimination task

Trapani A., Sheiban F., Bertone E., Chiosso S., Colombo L., D'Andrea M., De Santis F., Fati F., Fossati V., Gonzalez V., Pedrocchi A.
Frontier in Integrative Neuroscience 2022.

Relevant Works

E-health Methods and Applications

Implementation of a comprehensive Alexa skill to support the rehabilitation of stroke patients, promoting adherence and providing various memory exercises.

Medical Robotics and Technologies for computer aided surgery laboratory

Implementation of a deep learning approach for cystoscopy/ureteroscopy tumours segmentation to recognize lesions/tumors in images of the urinary tract during endoscopic surgery.