

FRANCO FUSCO

Research & Development Engineer

Date of Birth 24 August 1993

Nationality Italian

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WORK EXPERIENCE

R&D Engineer (CDI)

Neurodec neurodec.ai

Mar 2022 – Apr 2025

Valbonne (FR)

Development and maintenance of MDT*, a Python/C++ simulator for electrical activity during muscular contractions. Employed libraries: PyTorch, SQLAlchemy, Flask, CGAL.

*Maksymenko *et al.*, "A myoelectric digital twin for fast and realistic modelling in deep learning." Nature Communications 14.1 (2023): 1600. [available online](#)

ATER

I3S Sophia Antipolis & IUT Nice Côte d'Azur

Sep 2021 – Feb 2022

Sophia Antipolis (FR) & Nice (FR)

Research activities: investigation of novel control schemes based on a hybrid model-based and data-driven approach, using MPC techniques in conjunction with DNNs.

Teaching activities: 180+ hours between lectures and practical sessions (control theory, reinforcement learning, programming).

Post-doc: Advanced Robot Control

I3S Sophia Antipolis

Dec 2020 – Aug 2021

Sophia Antipolis (FR)

Study of parameterized MPC algorithms tailored for highly non-linear systems with fast dynamics and limited computational power.

EDUCATION AND TRAINING

Ph.D. in Robotics

LS2N Centrale Nantes

Oct 2017 – Nov 2020

Nantes (FR)

Thesis title: Dynamic Visual Servoing for Fast Robotic Arms

M.Sc. in Robotics

Università degli studi di Genova & Centrale Nantes

Sep 2015 – Aug 2017

Genoa (IT) & Nantes (FR)

Thesis title: Obstacle and Self-collision Avoidance with a Dual-arm Manipulator

B.Sc. in Mechatronics

Università degli studi di Padova

Sep 2012 – Nov 2015

Vicenza (IT)

Thesis title: Data Acquisition System for a Line-scan-camera of the Freescale-Cup Vehicle

STRENGTHS

Fast-learner

Hard-working

Enthusiastic

C++

Python

LaTeX

ROS

ViSP

Nonlinear Control

Applied Linear Algebra

PUBLICATIONS

[1] Fusco *et al.* (2020), Integrating features acceleration in Visual Predictive Control.

[2] Fusco *et al.* (2022), Benchmarking nonlinear model predictive control with input parameterizations.

[3] Isralov *et al.* (2023), Reinforcement learning approach to control an inverted pendulum: A general framework for educational purposes.

LANGUAGES

French



English



Italian (mother tongue)



Spanish



OTHER INTERESTS

Photography

Hiking

Scuba-diving

Skiing

3D printing

MY LIFE PHILOSOPHY

"If life's a movie, be the actor – not a spectator"

REFEREES

Kostiantyn Maksymenko

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