



Veronica Fossati

WORK EXPERIENCE

Tutor for private lessons

il-Cubo, Corsi e Ripetizioni [04/2019 – 09/2023]

Country: Italy

Tutor for private lessons in scientific and technical subjects

Student's collaboration

Politecnico di Milano [08/2019 – 02/2020]

Country: Italy

Collaboration with the International Mobility Unit of Politecnico di Milano for the organization and management of the Welcome Weeks of international students and back office support

Research Intern

Department of Electronics, Information and Bioengineering, Politecnico Di Milano, Milan, Italy [02/2020 – 07/2020]

City: Milan | Country: Italy

Type of project: Bachelor's thesis project

Title of the thesis: **Study of Heart Rate variability for the analysis of Autonomic Nervous System responses during programming task**

Topic: Analysis of ECG data for assessing the variability of Heart Rate features during the execution of code reading, writing and debugging tasks, in order to evaluate the influence of cognitive load over the autonomic activity

Extracurricular collaboration

NEARLab – NeuroEngineering and Medical Robotics Lab of Politecnico di Milano [02/2021 – 12/2021]

City: Milan | Country: Italy

Title of the project: **FESbike@Cybathlon**

Topic: Collaboration with the FESbike team of Politecnico di Milano, aiming at improving the mechanical features and the control strategy of a passive trike, actuated by Functional Electrical Stimulation applied on paralyzed muscles of a pilot who experienced Spinal Chord Injury. The team competes every four years in the Cybathlon competition, organized by ETH of Zurich. The main activities included: (a) improvement of the C++ software for controlling the stimulation, (b) improvement of the training protocol, (c) managing of pilot's training

Extracurricular collaboration

NEARLab – NeuroEngineering and Medical Robotics Lab of Politecnico di Milano [11/2021 – 03/2022]

City: Milan | Country: Italy

Title of the project: **Reproducing a decision-making network in a virtual visual discrimination task**

Topic: Reproduction of a decision-making network using the Neural Simulation Tool (NEST), in order to simulate the salient features of the neural processes underlying a binary decision. The network has been embedded in a virtual robotic agent performing a simulated behavioural task; the visual discrimination task has been implemented on the EBRAINS infrastructure through the neuro robotics platform (NRP)

Research Intern

NEARLab – NeuroEngineering and Medical Robotics Laboratory of Politecnico di Milano [08/2022 – 05/2023]

City: Milan | Country: Italy

Type of project: Master's thesis project

Title of the thesis: **A hybrid FES-motor assisted exoskeleton for upper limb rehabilitation**

Topic: Hardware and software integration of Functional Electrical Stimulation in a robotic platform for upper limb rehabilitation through the execution of frontal reaching tasks

Ph.D. student in Biorobotics

Scuola Superiore Sant'Anna di Pisa [10/2023 – Current]

City: Milan | Country: Italy

Topic: Data-driven optimization of Epidural Electrical Stimulation

Location: Modular Implantable Neuroprostheses Laboratory, IRCCS Ospedale Vita-Salute San Raffaele, Milan

EDUCATION AND TRAINING

Diploma di Liceo Classico

Liceo Classico B. Zucchi [09/2012 – 07/2017]

City: Monza | Country: Italy | Field(s) of study: Humanistic and literary studies | Final grade: 100/100

Bachelor's Degree in Biomedical Engineering

Politecnico di Milano [09/2017 – 07/2020]

City: Milan | Country: Italy | Field(s) of study: Information Engineering | Final grade: 110/110 cum Laude | Thesis: Study of Heart Rate variability for the analysis of Autonomic Nervous System responses during programming task

Erasmus Exchange

Norges teknisk-naturvitenskapelige universitet (NTNU) [01/2022 – 06/2022]

City: Trondheim | Country: Norway

Master's Degree in Biomedical Engineering

Politecnico di Milano [09/2020 – 05/2023]

City: Milan | Country: Italy | Field(s) of study: Biotechnologies for electronics | Final grade: 110/110 cum Laude | Thesis: A hybrid FES-motor assisted exoskeleton for upper limb rehabilitation

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Spanish

LISTENING B1 READING B1 WRITING A2

SPOKEN PRODUCTION A2 SPOKEN INTERACTION A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Powerpoint / Microsoft Excel / Microsoft Office / Programming / Python / Matlab / C++

CONFERENCES AND SEMINARS

[23/09/2022 – 24/09/2022] Lyon, France

Lyon Cyber Days 2022 Scientific Conferences on Functional Electrical Stimulation (FES) and its applications to cycling and sports. Practical demonstration through a race of trikes actuated through FES applied to lower limbs of people with SCI

[15/04/2024 – 19/04/2024] Dubrovnik, Croatia

Neural Control of Movement Title of the poster: Real-time analysis of gait through inertial sensors for optimization of epidural electrical stimulation

Authors: Veronica Fossati, Simone Romeni, Ilaria Ciampa, Daniele Emedoli, Sandro Iannaccone, Silvestro Micera

PUBLICATIONS

[2022]

[Reproducing a decision-making network in a virtual visual discrimination task](#)

DRIVING LICENCE

Driving Licence: B

HONOURS AND AWARDS

[2018] Politecnico di Milano

Premio migliori matricole 2017/2018

[2019] Fondazione Aurelio Beltrami

Scholarship "Ing. Aurelio Beltrami"