Alessandro Corsini

Current Position

I am a Ph.D. student in Translational Neuroscience and Neurotechnology at the *Center for Translational Neurophysiology of Speech and Communication* of the Istituto Italiano di Tecnologia located in Ferrara, Italy. Here, I study the nature of human speech processing and perception: the way humans extract, store and integrate information about speech streams.

Education

Istituto Italiano di Tecnologia, Università di Ferrara Sept 2022 – Present

 $Ph.D.\ in\ Translational\ Neuroscience\ and\ Neurotechnology$

Politecnico di Milano Sept 2023 – Present

"Corsi Singoli" from M.Sc. Courses: Machine and Deep Learning, Stochastic Processes

Technische Universität Berlin Oct 2020 – Sept 2023

M.Sc. in Innovation in Information and Communication Technology, Final grade: 1.5/1.0

Politecnico di Milano Sept 2020 – Sept 2022

M.Sc. in Computer Science and Engineerig, Final grade: 110/110 cum Laude

Politecnico di Milano Sept 2017 – Sept 2020

B.Sc. in Engineering of Computing Systems, Final grade: 104/110

Internships

Research and development intern

Mar 2022 – Aug 2022

Organic Bioelectronics Srl

• Electrophysiological Data Analysis (EEG,EMG)

• Scientific Writing

Notable Certifications

Neuromatch Academy Jul 2023

 $Computational\ Neuroscience$

• Machine and Deep Learning

- Dynamical Systems
- Stochastic Processes
- ECoG Motor Imagery of Tongue and Hand Gestures

EIT Digital Master School

EIT Label in Human-Computer Interaction and Design

Minor: Innovation and Entrepreneurship

EIT Digital & School of Economics and Business of Lublijana

Aug 2021

Nov 2022

EIT Summer School in Digital Transformation for Organisational Resilience

- Lean Start-up Approach
- Business Model
- Innovation and Entrepreneurship

NECSTLab Nov 2020

Hack the NECSTCamp, Hackathon Software Development for a Smart Alarm

Notable Github Projects

PyPID_mvn

Python package for Partial Information Decomposition

ArticEncod_difficulty

Complementary Neural Encoding of Invisible Articulatory Synergies

NMA_2023_MotorImagery

ECoG Motor Imagery of tongue and hand gestures

Publications	
M.Sc. Thesis EEG Encoding of Speech Acoustics and Articulatory Features: A Partial Information Decomposition Study	2022
Complementary Neural Encoding of Invisible Articulatory Synergies	2023
Speech Perception Difficulty Modulates Theta-band Encoding of Articulatory Synergies Accepted in Journal Of Neurophysiology	2024
Language	
English: Advanced, Italian: Native	

Python, PyTorch, Matlab, C, Java, SQL, VueJs

Programming Languages and Tools