

PERSONAL INFORMATION

Giovanni Granato



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Sex M | Date of birth 02/10/1992 | Nationality Italian

PROFILE

I am a **researcher in Computational Neuropsychology** at the Italian National Research Council (CNR), Institute of Cognitive Sciences and Technologies (ISTC), where I coordinate a research line within the Laboratory of Embodied Natural and Artificial Intelligence (LENAI). My training spans Cognitive Sciences, Neuroscience, Machine Learning, Computational Modelling, and Cognitive Robotics. My research integrates **theoretical, computational, and experimental approaches** to investigate the neurocognitive mechanisms underlying **higher-order cognition** (executive functions, metacognition, inner speech, and consciousness), within **original theoretical frameworks** that I have developed (Three-Components Theory, Motivated Categorical Perception Theory, and Goal-Aligning Representation Internal Manipulation Theory). My work pursues two complementary objectives: (a) the experimental **investigation of individual neuropsychological traits** supporting cognitive flexibility and metacognition across development and clinical conditions, and (b) the development and validation of **automated neuropsychological pipelines grounded in my original neuropsychological digital-twin method** - which integrates theory-driven and neuro-inspired computational models, standardised neuropsychological tasks, and interpretable model-based profiling and prediction - to support clinicians in diagnosis and psychotherapy planning. The pipelines, validated in translational projects, are implemented and shared on the **EBRAINS-Italy platform** to promote accessibility and integration within the European research ecosystem. I currently coordinate experimental, computational, and clinical studies involving **typical, clinical, and neurodivergent populations** (e.g., autism, ADHD, specific learning disorders), in collaboration with healthcare and academic institutions. Beyond clinical applications, my work also extends to human resources (job-position profiling), human-robot interaction (human factors), and cognitive robotics (machine consciousness).

WORK EXPERIENCE

October 2025 - Present **Researcher Ivl. III (fixed-term; call no. 331.4.RIC.ISTC)** at "Institute of Sciences and Technologies of Cognition" (ISTC), "Laboratory of Embodied Natural and Artificial Intelligence" (LENAI) at "National Research Council" (CNR).

Research focus: "Development of neuro-inspired computational models of higher-order human cognition (executive functions, metacognition) and their integration into automated pipelines for neuropsychological profiling in human-robot interaction as part of the "Purposeful Intrinsically Motivated Lifelong Learning Autonomous Robots" (PILLAR-Robots).

March 2025 **Expert support in team-building based on educational Robotic for "Italiacamp srl"**

Topic: "Team-building with educational robotics in group problem solving" (target: *Middle adults*)

- June 2023 - September 2025** **Researcher lvl. III (fixed-term; call no. 400.06.RIC.ISTC.PNRR)** at "Institute of Sciences and Technologies of Cognition" (ISTC), "Laboratory of Embodied Natural and Artificial Intelligence" (LENAI) at "National Research Council" (CNR).
- Research focus:** "Computational models of brain and behavior, with particular reference to higher cognition, executive functions, metacognition, and consciousness. Study and validation of computational models with data collected in experiments with normo-typical or pathological human participants. Implementation of machine learning pipelines for data analysis with particular reference to EBRAINS research infrastructure. Contribution to the training and innovation activities of the "EBRAINS-Italy Training and Innovation Centre (ETIC)" based in Rome.
- November 2022** **Consultancy/teaching** in Educational Robotic for "Italiacamp srl"
- Topic:** "Impact and elements of Autonomous Robotics" (target: *Middle adults*)
- October 2022** **Consultancy/teaching** in Educational Robotic for "Italiacamp srl"
- Topic:** basic elements of Robotics (target: *Middle school teenagers*)
- June 2022 - July 2022** **Consultancy and collaboration** as "STEAM Training Specialist in Educational Robotics" at "Italiacamp srl"
- June 2019 - May 2023** **Research Fellowship (call no. ISTC-AdR-257-2019-RM, with renewal/extension)** at "Institute of Sciences and Technologies of Cognition", laboratory of "Computational Embodied Neuroscience" at "National Research Center" .
- Research focus:** "Computational models of the brain system supporting flexible goal-directed behaviour"
- January 2019 - May 2019** **Research collaboration** at "Institute of Sciences and Technologies of Cognition", laboratory of "Computational Embodied Neuroscience" at "National Research Center".
- Research focus:** "Computational models of goal-directed behaviour and cognitive flexibility"
- October 2016 - December 2017** **Research consultancy** at the social and cognitive neuroscience laboratory (SCNL), Dept. of Psychology, "Sapienza, University of Rome"
- Topic:** "Virtual reality and Autism"
- April 2016 - July 2018** **Experimental thesis** at "Institute of Sciences and Technologies of Cognition", laboratory of "Computational Embodied Neuroscience" at "National Research Center"
- Title:** "Consciousness and Goal-directed Behavior: from theoretical neuroscience to computational models"

PROJECTS AND STUDIES

March/April 2026 - 2031 **Learning and using coNcepts: Knowledge exchAnging and enGaging in innEr and Social dynamics (LINKAGE; FIS project)**

Role: Researcher

Activities: Supervision of two project tasks, with a focus on theoretical formalisation, experimental paradigms, and computational modelling of inner-speech and executive functions.

October 2025 - Present **Purposeful Intrinsically Motivated Lifelong Learning Autonomous Robots (PILLAR-Robots; Horizon Europe project)**

Role: Researcher

Activities: neuropsychological testing, data analysis, data modeling, human-robot interaction

June 2023 - Present **EBRAINS-Italy (European Brain ReseArch INfrastructureS-Italy; PNRR NextGenerationEU project)**

Role: Researcher

Activities: management and training activities, and scientific production (“Computational models of brain and behavior, with particular reference to higher cognition, executive functions, metacognition, and consciousness”)

September 2022 - 2025 **Terza Missione: Ascoltare la comunità autistica per migliorare la conoscenza dell'autismo, l'accessibilità degli studenti autistici all'università e la ricerca scientifica sull'autismo (institutional funds)**

Role: Research consultant

Activities: autistic research consultancy and participation in the workgroup “participatory research in Autism”

April 2019 - April 2021 **GOAL Robots (Goal-based Open-ended Autonomous Learning Robots; EU FET project)**

Role: Research fellow

Activities: scientific activity (“Neuro-inspired computational models of goal-directed behavior with potential applications in Robotics/Cognitive Robotics”)

ETHICS-APPROVED SCIENTIFIC/CLINICAL STUDIES

October 2025 - Present **Metacognition and executive functions in typical and atypical neurodevelopment: towards a translational neuropsychology integrating theoretical frameworks, experimental methodologies and computational models**

Role: Scientific leader/ responsible

Activities: Scientific coordination, neuropsychological assessment, data analysis and modeling

June 2025 - Present **Toward a Computational Neuropsychology of metacognitive and goal-directed cognition: integrating theoretical, computational and experimental research**

Role: Scientific leader/ responsible

Activities: Scientific coordination, neuropsychological assessment, data analysis and modeling

September 2024 - Present **Disturbo da Deficit di Attenzione/Iperattività (ADHD): gli SNiPs del gene DAT in relazione alla presenza di patologie auto-immuni familiari**

Role: Scientific study supervisor

Activities: Scientific supervision, team coordination, neuropsychological assessment, data analysis and modeling

TEACHING AND ADVANCED TRAINING

November 2025 - Present **Computational Neuropsychology of Higher-Order Conscious Cognition: Neuro-Inspired Computational Models of Healthy, Neurological, and Psychiatric Conditions**

Programme: e-DIANA - EBRAINS-Italy Digital Academy for Neuroscience and AI

Role: Contract Lecturer

Target: PhD students and postdoctoral researchers

Activities: Design and delivery of an advanced online course in computational neuropsychology. The course covers theoretical foundations of human cognitive flexibility and neuro-inspired computational modelling, and includes hands-on practical sessions in which participants use computational models to reproduce human behavioural data and generate novel predictions on previously untested populations.

SCIENTIFIC LEADERSHIP, EDITORIAL & COMMITTEE ROLES, AND OTHER POSITIONS

October 2025 - Present **Scientific lead/responsible (ethics-approved study)**

Roles: Coordinator and scientific director of the clinical-computational experimental study "Metacognition and executive functions in typical and atypical neurodevelopment: towards a translational neuropsychology integrating theoretical frameworks, experimental methodologies and computational models" (CNR-ISTC, ISS, ASL - Rome 6, AS-ETS).

March 2025 - Present **Scientific supervisor (ethics-approved study)**

Roles: scientific supervisor of the clinical-computational study "Metacognition and executive functions in typical and atypical neurodevelopment: towards a translational neuropsychology" (CNR-ISTC, ISS, AS-ETS).

24 July 2025 - Present **Scientific lead/responsible (ethics-approved study)**

Roles: scientific responsible for the ethics-approved clinical-computational study "Toward a Computational Neuropsychology of metacognitive and goal-directed cognition: integrating theoretical, computational and experimental research" (CNR-ISTC, La Sapienza).

- 5 May 2025 - Present** **Guest Editor (Frontiers in Psychology)**

Roles: topic coordinator in a special issue on “Bridging Language and Consciousness: Insights from Brains, Minds, and Machines” (Research Topic)
- December 2024 - Present** **Officina Ricerca Partecipativa Autismo (ORPA)**

Roles: permanent member of the group
- March 2024 - Present** **“EBRAINS-Italy Training and Innovation Committee (ETICo)”**

Roles: Definition of the ETIC training offer, management of the training and technological transfer activities
- November 2023 - Present** **“Italiacamp association”**

Roles: Teaching and dissemination in the AI/Robotics fields
- 2 April 2026** **ISTC-CNR, selection committee for a research contract (notice n. ISTC-CR-002-2026-RM)**

Roles: member of the commission (secretary)
- 4 August 2025** **ISTC-CNR, selection committee for a research grant (notice n. ISTC-BR-7-2025-RM)**

Roles: member of the commission
- 2 May 2025** **ISTC-CNR, selection committee for a research grant (notice n. ISTC-BR-2-2025-RM)**

Roles: member of the commission
- 12 February 2025** **ISTC-CNR, selection committee for a senior research fellow grant (notice n. ISTC-AdR-430-2024-RM)**

Roles: member of the commission
- 20 May 2024** **ISTC-CNR, selection committee for a senior research fellow grant (notice n. ISTC-AdR-400-2024-RM)**

Roles: member of the commission (secretary)
- 20 July 2023** **University of Rome “La Sapienza” (“Cognitive Neuroscience”), MA graduation commission**

Roles: External supervisor

EDUCATION AND TRAINING

- September 2025** **EBRAINS-Italy Scientific Academy – BRAiN Dynamics academy, Oristano, Italy**

Topics: Advanced training on neuroscience research, from molecular to cellular and systems neuroscience, and embracing multiple methodological approaches.
- April 2019 - October 2022** **PhD in "Computer science" (“Computational Neuropsychology”) at "School of Computer Science, Electronics and Mathematics", University of Plymouth, United Kingdom**

Project title: "Flexible goal-directed manipulation of representations: computational models of healthy and pathological human cognition"

Topics: Machine learning, Deep learning, Generative models, Artificial neural networks, Clinical Neuropsychology, Computational Neuroscience/Neuropsychology, Neuro-robotics

- October 2018 - April 2019** **Advanced School in Artificial Intelligence at “CNR-ISTC”**
- Project title:** "Flexible goal-directed behavior and internal attention: building blocks for consciousness "
- Topics:** Machine learning, Artificial neural networks, Agent-based models, Computational Neuroscience/Neuropsychology
- October 2015 - July 2018** **Master's degree in "Cognitive Neuroscience and Psychological Rehabilitation" at University of Rome "La Sapienza", Dept. of Medicine and Psychology, Faculty of Psychology**
- Thesis title:** "Consciousness and Goal-directed Behavior: from theoretical neuroscience to computational models"
- Topics:** Cognitive Neuroscience, Neuropsychology, Systemic Neuroscience, Neurobiology, Computational Neuroscience/Neuropsychology
- October 2012 - July 2015** **Bachelor's Degree in "Psychological Sciences and Techniques" (curriculum: "Cognitive Processes") at "University of Florence", Faculty of Psychology**
- Thesis title:** "Emergence of a consciousness from a hyper-connected neuronal system: neurobiological models and hypotheses "
- Topics:** General psychology, Psychobiology, Developmental psychology, Work psychology, Psychodynamics, Psychometrics, Physiological psychology, Research methodology, Developmental psychobiology, Cognitive neuropsychology

INNOVATION, ENTREPRENEURSHIP AND TECHNOLOGY TRANSFER TRAINING

- December 2025 - March 2026** **“BoostYourIdeas” Programme - Lazio Innova (Regional Innovation Agency)**
- Programme:** highly selective innovation and entrepreneurship training programme (≈20 projects selected).
- Activities:** development of one innovative project, a software platform integrating computational neuropsychology and AI for cognitive profiling and neuropsychological digital-twin generation in clinical and organisational settings; training in business modelling, product validation, prototyping, IP and technology transfer.

RESEARCH CONTRIBUTIONS (software, publications, seminars)

Software and tools

- **Digital-Twin Neuropsychology Pipeline**
 - **Author:** Giovanni Granato
 - **Co-authors:** Jordy Di Giulio, Giulia Manzi
 - **Type:** research tool
 - **Platform:** EBRAINS
 - **Link:** <https://www.ebrains-italy.eu/resources/analysis-tools/9>
 - **Description:** An automated and model-based pipeline, validated on human experimental clinical data, that supports the task administration and the interpretation/prediction of data collected with gold-standard neuropsychological tests of executive functions and metacognition (e.g. WCST, meta-WCST).

- **Online repository of computational models**
 - **Author:** Giovanni Granato
 - **Type:** online repository
 - **Platform:** Git-hub
 - **Link:** <https://github.com/GiovanniGranato>
 - **Description:** Online repository that stores and shares several computational models of higher-order cognition

Publications

IN PREPARATION, SUBMITTED, UNDER REVIEW, ACCEPTED, IN PRESS

- Mattera A., Alfieri V., **Granato G.**, Mannella F., Baldassarre G. (2026). **Oscillations, but not chaos, confer stochastic-like properties to a deterministic neural network.** *Submitted to Neural Networks (Elsevier).*
- **Granato G.**, Di Giulio J., Manzi G., Puzzo C., Mattera, A., Giocondo F., Adriani W., Capobianco M., Baldassarre G. (2026). **An automated pipeline for lifespan neuropsychological assessment of executive functions and metacognition based on multi-layer neuropsychological digital twins.** *Scientific Reports. Under Review.* Pre-print: https://doi.org/10.31234/osf.io/xu9j8_v1

PUBLISHED

- **Granato, G.**, Mattera, A., Cartoni, E. & Baldassarre, G. (2026) **Modeling metacognition and executive functions in the metacognitive wisconsin card sorting test using the neuropsychological digital-twin method.** *Scientific Reports*, 16, 7145
- **Granato, G.**, Manzi, G., Di Giulio, J., Puzzo, C., Mattera, A., Adriani, W., Baldassarre, G., & Capobianco, M. (2025). **Assessing executive functions and metacognition: Translational potential of the Metacognitive Wisconsin Card Sorting Test for developmental neuropsychology.** *Front. Behav. Neurosci.* 19:1655310.
- Bartolomei, G., Ozcan, B., **Granato, G.**, Baldassarre, G., & Sperati, V. (2025). **A proposal for an AI-based toy to encourage and assess symbolic play in autistic children.** *Behaviour & Information Technology*, 1-14.
- Bartolomei, G., **Granato, G.**, Baldassarre, G., Ozcan, B., & Sperati, V. (2025). **A Proposal for a Multimodal Interactive Platform for Data Collection in Autism Play-Based Therapy Sessions.** Poster presented at “ISWC 2025 and UbiComp”.
- Bartolomei, G., Ozcan, B., **Granato, G.**, Baldassarre, G., & Sperati, V. (2025). **Echo: an AI-based toy to encourage symbolic play in children with Autism Spectrum Conditions.** In *Proceedings of the Nineteenth International Conference on Tangible, Embedded, and Embodied Interaction* (pp. 1-6).
- **Granato, G.**, Costanzo, R., Borghi, A., Mattera, A., Carruthers, S., Rossell, S., & Baldassarre, G. (2025). **An experimental and computational investigation of executive functions and inner speech in schizophrenia spectrum disorders.** *Scientific Reports*, 15(1), 5185.
- Mattera, A., Alfieri, V., **Granato, G.**, & Baldassarre, G. (2024). **Chaotic recurrent neural networks for brain modelling: A review.** *Neural Networks*, 107079.

- **Granato, G., & Baldassarre, G. (2024). Bridging flexible goal-directed cognition and consciousness: The Goal-Aligning Representation Internal Manipulation theory.** *Neural Networks*, 106292.
- Cavallo A., Mattera A., **Granato G.**, Baldassarre G. (2023). **Emergence of neuronal ensembles in a chaotic corticostriatal circuit.** In 2023 Conference on Cognitive Computational Neuroscience.
- **Granato, G. (2022). Flexible goal-directed manipulation of representations: computational models of healthy and pathological human cognition** (Doctoral dissertation, University of Plymouth).
- **Granato, G., Borghi, A. M., Mattera, A., & Baldassarre, G. (2022). A computational model of inner speech supporting flexible goal-directed behaviour in Autism.** *Scientific reports*, 12(1), 1-15.
- **Granato G., Cartoni E, Da Rold F, Mattera A, Baldassarre G (2022) Integrating unsupervised and reinforcement learning in human categorical perception: A computational model.** *PLoS ONE* 17(5): e0267838.
- Mattera, A., Cavallo, A., **Granato, G.**, Baldassarre, G., & Pagani, M. (2022). **A Biologically Inspired Neural Network Model to Gain Insight Into the Mechanisms of Post-Traumatic Stress Disorder and Eye Movement Desensitization and Reprocessing Therapy.** *Frontiers in Psychology*, 3681.
- **Granato G., Baldassarre G. (2022). Manipulation of internal representations underlying flexible human goal-directed behaviour: supporting Computational Psychiatry and towards Machine Consciousness.** Poster session presented at "The symposium: from cortical microcircuits to consciousness (CORTICON)"
- **Granato, G., & Baldassarre, G. (2021). Internal manipulation of perceptual representations in human flexible cognition: A computational model.** *Neural Networks*, 143, 572-594.
- **Granato, G., Borghi, A. M., & Baldassarre, G. (2020). A computational model of language functions in flexible goal-directed behaviour.** *Scientific reports*, 10(1), 1-13.
- Baldassarre, G., & **Granato, G. (2020). Goal-Directed Manipulation of Internal Representations Is the Core of General-Domain Intelligence.** *Journal of Artificial General Intelligence*, 11(2), 19-23.
- **Granato, G., & Baldassarre, G. (2019). Goal-directed top-down control of perceptual representations: A computational model of the Wisconsin Card Sorting Test.** In 2019 Conference on Cognitive Computational Neuroscience (pp. 2019-1168).
- Baldassarre, G., Lord, W., **Granato, G.**, & Santucci, V. G. (2019). **An embodied agent learning affordances with intrinsic motivations and solving extrinsic tasks with attention and one-step planning.** *Frontiers in neurobotics*, 13, 45.

Seminars and Speeches

- **Granato G.**, Baldassarre G. (2018). **Goal-directed imagination and cognitive flexibility: A computational model of the Wisconsin Sorting Card Test.** Poster session presented at "The Eighth International Symposium on Biology of Decision Making (SBDM)"
- (2/10/2025; Agropoli, Italy) **Behavioural Neuroscience Conference 2025.**
Speaker presentation: "Towards automated and model-based digital-twin pipelines for neuropsychological assessment and intervention selection"
- (04/12/2025; Nape, Italy) **Research Infrastructure EBRAINS-Italy, workshop on "The EBRAINS-Italy Research Infrastructure for Neuroscience challenges".**
Speaker presentation: "An automated toolbox for modeling flexible goal-directed cognition: advancements and achievements"
- (08/03/2024; Rome, Italy) **"Project Terza Missione: Ascoltare la comunità autistica per..."**, workshop on **"Autismo e Ricerca Partecipativa - Online Workshop".**
Speaker presentation: "The italian autism participatory research working group"
- (26/09/2023; Palermo, Italy) **Research Infrastructure EBRAINS-Italy, workshop on "The EBRAINS-Italy Research Infrastructure for Neuroscience challenges".**
Speaker presentation: "Modeling Flexible goal-directed cognition: an automated research toolbox."
- (18/07/2023; Rome, Italy) **"Poste Italiane"**, seminar on **"Transizioni di vita, disabilità e vulnerabilità nell'organizzazione come comunità".**
Invited speaker presentation: "Autism/Asperger in organizations: from disability to life changes"
- (28/06/2019; Rome, Italy) **"Fondazione Mondo Digitale"**, seminar on **"Vagone FMD. da 01 a 100: aperitivo con l'innovazione".**
Speaker presentation: "Flexible goal-directed behaviour and internal attention"

REVIEWING ACTIVITY & EDITORIAL COMMUNITY SERVICE

Community roles

- **Community Reviewer**, Frontiers in Psychiatry – Computational Psychiatry Section (2025 - present).

Invited reviewer

- **International journals:**
 - **"Neural Networks"** (Elsevier; topic: neuro-inspired Machine

Learning)

- **“Scientific Reports”** (Nature Publishing Group; topic: Neuro-robotics, Neuroscience)
- **“Frontiers in Artificial Intelligence”** (Frontiers Media SA; topic: linguistics, computational modeling)
- **“Frontiers in Psychiatry”** (Frontiers Media SA; topic: executive functioning, computational modeling)
- **“Journal of Cognitive Psychology”** (Taylor & Francis; topic: experimental psychology, inner-speech, theory of mind, emotion recognition)
- **“Intelligenza Artificiale”** (SAGE Publications; topic: machine learning applied to clinical diagnosis)

- **International conferences:**

- **“The Annual Meeting of The Cognitive Science Society” (COGSCI, 2026)** (topic: higher-order cognition and neuro-divergence)
- **“International Conference on Social Robotics + AI 2025 (ICSR, 2025)”** (topic: Social developmental robotics)
- **“Cognitive Computational Neuroscience conference (CCNC, 2023)”** (topics: Various)
- **“Cognitive Computational Neuroscience conference (CCNC, 2019)”** (topics: Various)

Project evaluations

- “La Sapienza, university of Rome” (2023)

COLLABORATION AND SUPERVISIONS

Collaborations

- **ASL (Roma 6)** (Responsible: Giovanni Granato)
Country: Italy
Referent: Miriam Troianello

Topic: “Executive functions and metacognition in clinical and control conditions of childhood”

- **Italian National Institute of Health** (Responsible: Walter Adriani)
Country: Italy
Referent: Walter Adriani

Topic: “Executive functions and metacognition in clinical and control conditions of childhood”

- **Private clinics - ETS “Bimbo al centro”** (Responsible: Micaela Capobianco)

Country: Italy
Referent: Micaela Capobianco

Topic: "Executive functions and metacognition in clinical and control conditions of childhood"

- **Centre for Mental Health at Swinburne University of Technology** (PI: Susan Rossell)
Country: Australia
Referent: Sean Carruthers

Topic: "Computational models of flexible cognition in Schizophrenia"

- **Consciousness, Cognition, and Computation Group** (CO3, PI: Axel Cleeremans)
Country: Belgium
Referent: Axel Cleeremans

Topic: "Metacognition and flexible goal-directed behavior"

- **ItaliaCamp, srl** (AD: Fabrizio Sammarco)
Country: Italy
Referent: Riccardo Santilli

Topic: "Educational Robotics"

- **Social and Cognitive Neuroscience Laboratory** (SCNL, PI: Salvatore Aglioti)
Country: Italy
Referent: Ilaria Minio Paluello

Topic: "Participatory research in Autism"

- **Body Action Language Lab** (BALLAB, PI: Anna Borghi)
Country: Italy
Referent: Anna Borghi

Topic: "Inner speech and Flexible goal-directed Behaviour in healthy, pathological and divergent conditions".

- **Social and Cognitive Neuroscience Laboratory** (SCNL, PI: Salvatore Aglioti)
Country: Italy
Referent: Ilaria Minio Paluello

Topic: "Participatory research in Autism", "Virtual reality and Autism"

Supervisions

- Di Giulio J. (2024/2025). **Post-lauream internship** at "Laboratory of Natural and Artificial Intelligence" (ISTC-CNR).

Topics: "Experimental and computational neuropsychology of higher-order cognition: development of experimental protocols and neuropsychological tests to probe Executive Functions and Metacognition".

- Manzi G. (2024/2025). **Pre-lauream internship** at "Laboratory of Natural and Artificial Intelligence" (ISTC-CNR).

Topics: "Experimental and computational neuropsychology of higher-order cognition: development of experimental protocols and neuropsychological tests to probe Executive Functions and Metacognition".

- Costanzo R. (2022/2023). **MA thesis** at "University of Rome La Sapienza, Department of Medicine and Psychology".

Topics: "Models of Executive Functions and Inner-Speech in Computational Psychiatry".

- Tortora L., De Bei F., Biris I. (2020). **Advanced research project** at "Advance School of Artificial Intelligence" (ASAI).

Topics: "ML applications in Computational Psychiatry (DNN supporting clinical diagnosis of Autism)".

- Fabrizio Carlo (2020). **Advanced research project** at "Advance School of Artificial Intelligence" (ASAI).

Topics: "Models human working memory with ML methods (LSTM)".

- Buttinelli Alessandro (2019). **Advanced research project** at "Advance School of Artificial Intelligence" (ASAI).

Topics: "Models of Inner-Speech in human flexible cognition"

- Muratore Paolo (2019). **Advanced research project** at "Advance School of Artificial Intelligence" (ASAI).

Topics: "Development of Neuro-inspired algorithms in Machine Learning"

PERSONAL SKILLS

Mother tongue Italian

Other languages

| | COMPARED | | PARLATO | | WRITTEN PRODUCTION |
|---------|-----------|---------|-------------|------------|--------------------|
| | Listening | Reading | Interaction | Production | |
| English | B 2 | C 1 | B 2 | B 2 | C 1 |

Levels: A1 / A2: Basic user - B1 / B2: Intermediate user - C1 / C2: Advanced user
[Common European Framework Reference of Languages](#)

Computer skills

- General:

- European Computer Driving License ECDL “Advanced” level
 - PC Assembly
- Operating systems used:
 - Windows
 - Linux
- Programming languages used:
 - Python
 - Scratch for Educational Robotics
 - MatLab
 - C ++
 - R
 - Latex
 - PHP
 - SQL
 - VBA

Personal interests

- Consciousness
- Humans interactions
- Neuropsychology/Psychiatry
- Technology:
 - Applied Sciences
 - Robotics
 - Domotics
- Videogames (Real Time Strategy, RTS)
- PC Assembling

Personal data

I authorize the processing of my personal data pursuant to the Legislative Decree June 30, 2003, n. 196 "Code regarding the protection of personal data".