

**Personal information**

- Date of birth: 14/02/95
  - Nationality: Argentinian
  - Email: iairembon@gmail.com
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**Education**

- Ph.D. candidate – University of Buenos Aires (UBA), Faculty of Exact and Natural Sciences, Calculus Institute, CONICET, Buenos Aires, Argentina. From: April 1 2021, until the present.
  - Psychology degree from the Faculty of Psychology, UBA. From: March 25 2014 - to 16 of December 2019. Total average: 9.03.
  - Upper-Intermediate level of English. UBA-CUI, University Language Center.
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**Teaching positions**

- University of San Andres. Lecturer - Master's in Behavioural Sciences, "Research Methodology" course. Edition 2025 and 2026.
  - IFSA. Lecturer - "Psychology and Neuroscience English Course" for US exchange university students, from March 25, 2023, to December 15, 2023.
  - Neurotransmitiendo (Neurotransmitting). Co-director - Annual Diploma in Cognitive Neurosciences and Experimental Psychology, for the years 2021, 2022, and 2023.
  - UBA. Faculty of Psychology. Assistant Lecturer in Neurophysiology (123) - II, from March 25 of 2021 until the present.
  - UBA. Faculty of Psychology. Assistant Lecturer - Psychophysiological Methods (777) from October 16 of 2020 until April 15 2021.
  - UBA. Faculty of Psychology. Ad Honorem Professor Assistant - Neurophysiology (123) - II, from July 10 of 2017 to March 31 of 2018, and from June 04 of 2018 to March 31 of 2019.
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**Scientific Papers**

- Barttfeld, P., Comay, N., **Embon, I.**, & Solovey, G. (2025). Pre-and post-decision signals of certainty in changing minds. *Trends in Neurosciences*.
- Bingham, I. N., Norel, R., Roitberg, E. G., Peller, J., Trevisan, M. A., Agurto, C., Shalom, D., Aguirre, F., **Embon, I.**.... & Berry, J. D. (2025). Listener effort measures clinically meaningful change of dysarthria in amyotrophic lateral sclerosis. *Brain Communications*, fcaf232.
- **Embon, I.**, Gerbaudo, M. A., Usaj, A. R., Iorio, A. A., Barttfeld, P., & Solovey, G. (2024). Exploring the relationship between dysfunctional personality traits with metacognition and confidence. *Current Psychology*, 1-10.
- **Embon, I.**, Cukier, S., Iorio, A., Barttfeld, P., & Solovey, G. (2023). Is visual metacognition associated with autistic traits? A regression analysis shows no link between visual metacognition and Autism-Spectrum Quotient scores. *Consciousness and Cognition*, 110, 103502.
- **Embon, I.**, Bruno, N. M., Rivera, M. N. D., Ballesteros, A. S., Beisel, J. M. S., & Andreau, J. M. (2022). Methodological considerations for the study of non-conscious processes through the masked priming paradigm. *Revista de Psicología y Psicopedagogía VII* (2022) 20-28.
- Bruno, N. M., **Embon, I.**, Rivera, M. N. D., Giménez, L., D'Amelio, T. A., Batán, S. T., ... & Andreau, J. M. (2020). Faster might not be better: Pictures may not elicit a stronger unconscious priming effect than words when modulated by semantic similarity. *Consciousness and Cognition*, 81, 102932.
- Correa Freisztav, M., **Embon, I.**, Menendez, J., Bruno, N. M., Iorio, A., & Sanchez, F. J. (2020). Bloqueando la formación de clases de equivalencia. Efecto de las restricciones temporales. *Revista Mexicana de Análisis de la Conducta*. [ENG: Blocking the formation of equivalence classes. Effect of temporal constraints. Mexican Journal of Behavior Analysis.]
- Menendez, J., Freisztav, M. C., Valentini, D., Sanchez, F., **Embon, I.**, Arriagada, N. R., & Iorio, A. (2019). Bloqueo según modalidad de estímulo en CEE: dificultades en la enseñanza con pictogramas. *Revista Argentina de Ciencias*

### Research collaborations

- Terrand. Freelance. Data Scientist - Python. Development of predictive models for incidents based on occupational health and safety data from companies. From May 2024 to present.
- EverythingALS. Data Scientist - Python. Collaboration with a foundation advancing research on Amyotrophic Lateral Sclerosis. From August 2023 to May 2024.
- UBA, Faculty of Exact and Natural Sciences, Calculus Institute. PhD Candidate - Neuroscience. Based at the Institute of Calculus under the supervision of Dr. Guillermo Solovey and Dr. Pablo Bartfeld. Doctoral research focuses on investigating perception in Autism Spectrum Disorder.
- Bar-Ilan University, Gonda Multidisciplinary Brain Research Center. Research Collaborator - Multisensory Processing Laboratory, led by Dr. Adam Zaidel. Research explores visual perception in Autism Spectrum Disorder.
- CONICET, IBYME. Research Intern - Behavioural Biology Laboratory, under Dr. Alberto Andrés Iorio. From 2016 to 2022. Tasks included conducting experiments, EEG recordings, data analysis, and manuscript preparation.
- UBA, Faculty of Psychology. Researcher - UBACyT Project (2018-2020): "Neurophysiological Correlates of Associative Memory," led by Dr. Alberto Andrés Iorio.
- UBA, Faculty of Psychology. Researcher - Independent project: "Temporal Dynamics of Subliminal Semantic Priming Effects Based on Semantic Relationships," as part of Neurophysiology (123). Funded by a National Interuniversity Council (CIN) grant in 2018.
- National Autonomous University of Mexico (UNAM), C3, México. Research Intern - Neural Dynamics Laboratory, led by Dr. Zeidy Muñoz Torres. First semester of 2019. Analysed sleep spindles in refractory epilepsy patients using Morlet Wavelet Transform.
- UBA, Faculty of Psychology. Researcher - UBACyT Project (2014-2017): "Control of Concept Learning: Neural Network Model and Experiments in Humans," led by Dr. Alberto Andrés Iorio.

University of Salvador, Faculty of Psychology. Research Assistant - Conducted behavioral and psychophysiological (SCR) experiments under Dr. Jorge Mario Andreau, Director of Research. Approximately 148 hours between July 2015 and December 2016.

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### Courses

- UBA. Calculus Institute. Course: "Data science for mental health and psychology: natural language processing, causal inference, and speech processing" taught by Daniel M. Low. 20 hours. From November 25 to November 28.
- National University of Córdoba. Course: "Experimental Design," taught by Dr. Débora Mola. From July 26 to August 31, 2024, with a total workload of 40 hours. Grade: 8.
- EMBO - BAMB Summer School for Advanced Modeling of Behavior. Intensive course on behavioral modeling, from July 16 to July 25, 2024, in Barcelona, Spain.
- Neuromatch Academy. Intensive course on "Deep Learning," with a total workload of 120 hours. Completed on July 28, 2023.
- National University of San Luis. Graduate course: "Statistics, Inference, and Modeling," taught by Dr. Osvaldo Martín during the first semester of 2023. Grade: 10.
- UBA, Faculty of Exact and Natural Sciences. Course: "Data Science R: Statistical Foundations," taught by the Calculus Institute during the first semester of 2022. Grade: 10.
- UBA, Faculty of Exact and Natural Sciences. Course: "Statistical Modeling Tools" (Master's in Statistics), taught by the Institute of Calculus during the first semester of 2022. Grade: 10.
- University of San Martín, School of Science and Technology. Course: "Computational Neuroscience," during the first semester of 2021. Grade: 8. Workload: 96 hours.
- Neuromatch Academy. Intensive course on "Computational Neuroscience." Completed on July 22, 2021.

- PSL Université Paris, University College London. Summer School: "First Annual School on Consciousness and Metacognition," from June 28 to June 30, 2021.
- UBA, Faculty of Exact and Natural Sciences. Course: "Decision Making," during the first semester of 2020. Grade: 10.
- UBA, Franco-Argentine Center for Higher Studies. Course: "Advances in Understanding the Uniqueness of the Human Brain," taught by Dr. Stanislas Dehaene and Dr. Yamila Sevilla, from November 19 to November 25, 2019. Grade: 9.
- UBA, Faculty of Exact and Natural Sciences. Course: "Introduction to Cognitive and Computational Neuroscience," during the second semester of 2018. Grade: 10.
- UBA, Faculty of Exact and Natural Sciences. Course: "M2: Computational Methods for Studying Language in the Brain," taught by Liberty Hamilton during the Escuela de Ciencias Informáticas 32, 2018.
- UBA, Faculty of Psychology. Optional course: "Psychophysiological Methods," coordinated by Alberto Iorio. Workload: 90 hours (semester-long). From March 23, 2017, to July 8, 2017. Grade: 10.

### **Participation in Conferences**

- 1º Argentine Congress of Cognitive Science. General coordinator of the first Argentine Congress of Cognitive Science, with around 300 participants. Held on September 20, 2024. Organised by institutions such as Neurotransmisiendo, University de San Andrés, University Torcuato Di Tella, University of Buenos Aires, and CONICET.
- Argentine Society of Neurosciences (SAN). Presenter at the "SAN Annual Meeting" with the work "Is metacognition associated with autistic traits? No link found between visual metacognition and AQ scores." From October 3 to October 7, 2023.
- National Autonomous University of Mexico. Presenter at the "Frontiers of Neuroscience" conference with the work "We think as we think: current issues in metacognition and design of experiments." on September 25, 2023.
- University of Salvador, AACC. Presenter at the XIX National Meeting and VIII International Meeting of AACC in the symposium "Reflecting on our thinking: recent studies on metacognition in vigilance, personality and decision making." and the workshop "Scientific Communication in Psychology and Neuroscience: Challenges and Strategies." From August 23 to August 25, 2023.
- University del Litoral. Presenter at the Applied, Computational, and Industrial Mathematics (MACI) conference with the work "Exploring dysfunctional personality traits in confidence and metacognition." From May 8 to May 11, 2023.
- Israeli Society For Neuroscience. Presenter at the "30<sup>th</sup> Israeli Society For Neuroscience Annual Meeting (ISFN)" with the work "Exploring the influence of dysfunctional personality traits on metacognition and confidence." From December 4 to December 6, 2022.
- Argentine Society of Neurosciences (SAN). Presenter at the "SAN Annual Meeting" with the work "Exploring the influence of dysfunctional traits on metacognition and confidence." From September 30 to October 2, 2022.
- Argentine Society of Neurosciences (SAN). Presenter at the "SAN Annual Meeting XXXVI" with the work "Is metacognition predicted by ASD traits in a neurotypical sample?" From October 18 to October 22, 2021.
- Argentine Informatics Conference (JAIIO) – AGRANDA. Presenter at the "50 JAIIO" conference with the work "Exploring the relationship between autism spectrum disorder traits and metacognition sensitivity." From October 18 to October 29, 2021.
- Autonomous University of the State of Morelos (Mexico-Cuernavaca). Presenter at the "Workshop on Physiological Dynamics and Complex Systems" with the work "Sleep spindles in the limbic system in humans" held at the International Science Center. From May 8 to May 11, 2019.
- Society for Neuroscience (SFN). Contributor to a presentation at the Neuroscience Congress 2018, San Diego, USA, from November 3 to November 7. Work presented: "The influence of semantic relatedness on the subliminal processing of words and pictures: A masked priming paradigm study."

## **Statistical Skills and Technical Expertise**

- Programming Languages:
  - o Advanced knowledge of Python and R.
  - o Intermediate knowledge of Matlab.
  - o Intermediate knowledge of JavaScript, CSS, and HTML.
- Psychophysiological Techniques:
  - o Advanced knowledge of electroencephalography (Event-Related Potentials; Fourier; Wavelet).
  - o Intermediate knowledge of functional magnetic resonance imaging (fMRI).
  - o Basic knowledge of electrodermal activity and eye tracking.
- Statistical Expertise:
  - o Linear regression.
  - o Resampling methods.
  - o Model selection.
  - o Regularized regressions (ridge, lasso, elastic-net) and variable selection.
  - o Dimensionality reduction.
  - o Bayesian modelling.
  - o Splines and generalized additive models (GAMs).
  - o Multilayer and convolutional neural networks.

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## **Science Communication and Outreach**

- Co-founder of Neurotransmitiendo [ENG: Neurotransmitting]. Organisation focused on communicating and disseminating scientific psychology and cognitive neuroscience to mental health professionals and the general public. Dissemination activities are carried out through various platforms such as social media (Instagram, Facebook, Mail, Spotify, Twitter) and community talks during conferences and events. Currently, the organisation comprises 30 members from diverse disciplines, with more than 25000 followers on Instagram and 25,000 on Facebook.  
More information about Neurotransmitiendo is available on their website: <https://www.neurotransmitiendo.org/>

Key contributions to Neurotransmitiendo include:

- o Coordination of various areas and activities.
- o Development of interactive proposals for followers.
- o Writing posts for Instagram.
- o Project advertising and recruitment of new members.
- o Delivering talks during conferences and events.
- o Overall project coordination.

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## **Thesis Jury**

- University CAECE - Faculty of Psychology. Jury member for the undergraduate thesis "Relationship between Neuroticism and Facebook use in adults." defended by Lucas Silva on April 13, 2021.

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## **Thesis Supervision**

University of Buenos Aires - Faculty of Psychology. Supervisor for:

- o Nicolás Rodríguez. Thesis: "Neurocognitive profile of early psychosis: a Chilean multicenter study." Year: 2021.
- o Axel Emanuel Casas. Thesis: "Relationship between Daylight Exposure, Digital Device Use in Chronotypes and Sleep Quality in College Students." Year: 2024.
- o Andrés País. Thesis: "The unfolding argument: literature review of the debate on causal structure theories in the study of consciousness." Year: 2024.

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## **Peer Review in Scientific Journals**

- Frontiers in Psychology.
- Argentine Journal of Behavioral Sciences.

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## Awards, Recognitions, and Scholarships

- UBAINT Docentes Scholarship 2022. Awarded by the University of Buenos Aires.
- Honour Diploma, granted by the Faculty of Psychology, University of Buenos Aires, on July 1, 2021.
- CONICET Doctoral Scholarship. Awarded in the 2020 call, under the supervision of Dr. Pablo Barttfeld and Dr. Guillermo Solovey.
- UBACyT Master's Scholarship 2020. Awarded by the University of Buenos Aires (Resolution 1245) to pursue a UBA master's degree and collaborate on the UBACyT research project "Neurophysiological Correlates of Associative Memory" directed by Dr. Alberto Iorio.
- UBAINT Students Scholarship 2018. Awarded by the University of Buenos Aires to complete the first semester of 2019 at the National Autonomous University of Mexico (UNAM).
- CIN Incentive Scholarship 2017. Awarded by the National Interuniversity Council (CIN) for scientific vocations. Granted on April 10, 2018.
- Outstanding Student Recognition 2017. Granted by the University of Buenos Aires on December 11, 2018.