Joana Brito

PhD Student in Computer Science and Engineering

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joanabbrito

PhD student and researcher at GAIPS (INESC-ID), Instituto Superior Técnico, working on assistive robots that give cognitive support while preserving people's sense of autonomy. Research spans human-robot interaction and assistive technology, with a focus on autonomy, cognitive support, and executive functions. Background in biomedical engineering and physiological computing. Part of the lab's social media team, engaged in science communication to share its research with the public.

Website · **ORCID** · **Google Scholar**

Education

2023–Present **PhD in Computer Science and Engineering**, *Instituto Superior Técnico, Universidade de Lisboa*, Portugal, Expected completion: December 2027
Supervised by Prof. Joana Campos (INESC-ID) and Dr. Filipa Correia (ITI/LARSyS).

2025 **Unite! Winter Research School**, *University of Grenoble*, France

2023 **Advanced Summer School on Artificial Intelligence (ESSAI & ACAI)**, *University of Ljubljana*, Slovenia

2018–2021 **MSc in Biomedical Engineering**, *Technische Universität Wien*, Austria, Final average: 1.4/5 (excellent; 1 = best)
Major in Biomedical Signals & Instrumentation. Thesis: *"Elliptical method for the time-domain quantification of the arterial baroreflex"*, advised by Prof. Eugenijus Kaniusas and Univ. Ass. Babak Dabiri.

2015–2018 **BSc in Biomedical Engineering**, *Instituto Superior Técnico, Universidade de Lisboa*, Portugal, Final average: 16/20

Academic Experience

2023–Present **Researcher**, *Group of Artificial Intelligence for People and Society, INESC-ID*, Lisbon, Portugal

2023–Present **Teaching Assistant**, *Instituto Superior Técnico, Universidade de Lisboa*, Portugal
Bachelor courses: Logic for Programming (1st year) and Artificial Intelligence (2nd year).

2022–2023 **Research Assistant**, *Instituto de Telecomunicações*, Lisbon, Portugal

2019–2021 **Research Trainee**, *Technische Universität Wien*, Austria

Publications

2027 **Brito, J.**; Correia, F.; Campos, J. " 'It Was Me Who Corrected It': Designing and Evaluating Autonomy-Preserving Robotic Support for Older Adults." *ACM/IEEE International Conference on Human-Robot Interaction (HRI'27). Under review.*

2027 **Brito, J.**; Belbute, M.; Stillwell, D.; et al. "Validating Gameplay as Executive Function Assessment: A Multi-Game Study with Neurodivergent Children." *ACM CHI Conference on Human Factors in Computing Systems (CHI'27). Under review.*

2026 **Brito, J.**; Neerincx, A.; Soares, A.; Dong, H.; Antunes, A. T.; Paiva, A.; de Graaf, M. M. A.; Campos, J. "Unlocking Emotions: The Impact of Robot Question-Asking and Reciprocal Sharing on Self-Disclosure during Emotion Learning." *ACM/IEEE International Conference on Human-Robot Interaction (HRI'26)*, Edinburgh, 316–325. doi:10.1145/3757279.3785542

2026 **Brito, J.** "Promoting User Autonomy Through Adaptive Robotic Cognitive Support for Neurodivergent and Aging Populations." *ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'26), Doctoral Consortium*, Porto, Portugal, 25 Oct 2026. *Accepted.*

2024–2026 Mohan, M.; **Brito, J.**; Neerincx, A.; et al. (first author in 2025) "Workshop YOUR Study Design!" (workshop proposals). *ACM/IEEE International Conference on Human-Robot Interaction (HRI)*: 2026, Edinburgh (doi:10.1145/3776734.3793852); 2025, Melbourne (doi:10.1109/HRI61500.2025.10973827); 2024, Boulder, CO (doi:10.1145/3610978.3638167).

2025 **Brito, J.**; Brito Duarte, R.; Fonseca, H. C. "Assistant Robots with an Agenda Foster Uncooperative Behaviors." *2025 IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN)*, Eindhoven. doi:10.1109/RO-MAN63969.2025.11217891

2024 Neerincx, A.; **Brito, J.**; Couto, M.; Campos, J.; et al. "Social Robotics in Psychological Interventions for Children." In *Digital Technologies for Learning and Psychological Interventions*. Springer Nature. doi:10.1007/978-3-031-76414-1_6

2024 Bota, P.; **Brito, J.**; Fred, A.; Cesar, P.; Silva, H. "A Real-World Dataset of Group Emotion Experiences Based on Physiological Data." *Nature Scientific Data*. doi:10.1038/s41597-023-02905-6

2021 Dabiri, B.; **Brito, J.**; Kaniusas, E. "Cardiovagal Baroreflex Hysteresis Using Ellipses in Response to Postural Changes." *Frontiers in Neuroscience* 15:720031. doi:10.3389/fnins.2021.720031

Funding & Fellowships

2026–Present **PhD Student Fellow – FCT**, *Fundação para a Ciência e para a Tecnologia (2025.01710.BD)*
Design and evaluation of an assistive robot that provides cognitive support through autonomy-supportive interactions rather than task-oriented assistance alone.

2022–2025 **PhD Student Fellow – EMPOWER**, *European Commission (Horizon Europe, GA 101060918)*
Design and evaluation of technological support tools to empower stakeholders in digital education.

2022–2023 **Research Fellow – Neurosecurity and Experimental Communication**, *European Commission Joint Research Centre (JRC/IPR/2021/VLVP/3145)*

Professional Service

2026 Student volunteer, ACM/IEEE International Conference on Human-Robot Interaction (HRI'26, CORE A*), Edinburgh.

2024–2026 Organizing Committee, Workshop "YOUR Study Design", ACM/IEEE International Conference on Human-Robot Interaction (HRI'24 in Boulder, CO, HRI'25 in Melbourne, HRI'26 in Edinburgh).

2025 Proceedings Chair, Social Media Chair & Student Volunteer Chair, IEEE 2025 Conference on Games (CoG'25, CORE B), Lisbon.

2024 Student volunteer, 4th TAILOR Conference "Trustworthy AI from Lab to Market", Lisbon.

Science Communication & Outreach

2024–Present Social Media Team, Group of Artificial Intelligence for People & Society, INESC-ID: science communication of the lab's research to the public.

Awards & Honors

2021 Academic Distinction, Technische Universität Wien (average below 1.5).

2018 Diploma of Academic Merit, Instituto Superior Técnico (top 10% of students, 2015–2018).

Research Interests

Human-Robot Interaction: Assistive Robotics, Cognitive Support, Autonomy-Supportive Design, Child-Robot Interaction

Digital Health & Serious Games: Executive Functions, Cognitive Assessment, Behavioral Indicators

Physiological Computing: Biosignals, Affective Computing, Wearable Sensors

Languages

Portuguese native English C1