









# Alexandre Sayal Campos

PhD Biomedical Engineering

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## Personal information

Nationality: Portuguese  
 Date of birth: 19-02-1993  
 Address: Coimbra, Portugal

## Languages

Portuguese (Native)  
 English (Level C1 Certificate)

## Areas of expertise

Neuroimaging | Brain connectivity  
 Machine Learning | Statistics  
 Nilearn | Nibabel | Numpy  
 Medical imaging | Open science  
 Data management | SCRUM | AI

## Interests

Neuroimaging | Problem solving  
 Data science | Music | Emotions  
 Cinema | Cooking | Motorsports  
 Violin | Orchestral works

## Short bio

Alexandre Sayal Campos holds a PhD in Biomedical Engineering from the University of Coimbra and brings over ten years of experience working at the intersection of cognitive neuroscience, neuroimaging, and data science. He has a strong background in fMRI, signal processing, experimental design, and advanced data analysis, with hands-on experience developing music-based and neurofeedback solutions. He is now seeking industry opportunities where he can apply his technical and analytical skills to build impactful, user-centred technologies in the health sciences.

## Experience

- 2019 - 2026  
**Data Science Researcher**  
 Investigation of neural correlates of music-evoked emotions for novel intervention design | Medical data organization | Open science practices and ethical regulations for research | Events organization and Oral presentations | Co-supervision and scientific writing | Technical support | Server management | Documentation
- 2015 - 2019  
**Research Assistant in Human Neuroscience**  
 Research on basic neuroscience in the field of human visual perception using functional magnetic resonance imaging.

## Education

- 2019 - 2026  
**University of Coimbra**  
**PhD in Biomedical Engineering**  
 "Listen to your brain - exploring music as an interface for real-time fMRI neurofeedback experiments", a project that intersects music, emotion, engineering, and neuroscience. Funded by Siemens Healthineers Portugal and FCT.
- 2011 - 2015  
**University of Coimbra**  
**MSc in Biomedical Engineering**  
 Specialization in Clinical Informatics and Bioinformatics (grade 16/20).  
 Thesis "Brain connectivity analysis for real-time fMRI neurofeedback experiments".  
 One semester at Aalto University, Helsinki, Finland.

## Skills

Functional MRI	●●●●●	Python	●●●●●
Medical imaging	●●●●●	MATLAB	●●●●●
Scientific writing	●●●●●	R	●●●●●
Teamwork	●●●●●	Arduino C++	●●●●●

## Publications (most representative)

- [\[2024\]](#) Decoding Musical Valence and Arousal: Exploring the Neural Correlates of Music-Evoked Emotions and the Role of Expressivity Features
- [\[2024\]](#) A human cortical adaptive mutual inhibition circuit underlying competition for perceptual decision and repetition suppression reversal
- [\[2021\]](#) Training the social brain: Clinical and neural effects of an 8-week real-time functional magnetic resonance imaging neurofeedback Phase IIa Clinical Trial in Autism

## Courses (including MOOC)

- Google IT Support [[certificate](#)]
- Python for Data Science and Machine Learning Bootcamp by Udemy [[certificate](#)]
- AWS Certified Data Engineer Associate 2025 - Hands On! by Udemy [ongoing]
- MRI Safety Course by Siemens Healthineers [2023]