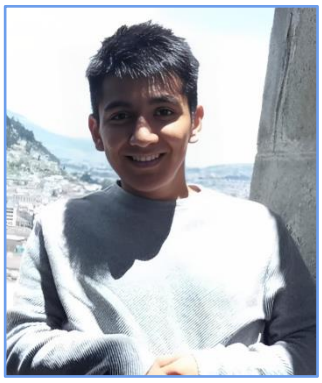

Adrian Leon

PhD student

Brain-Computer Interfaces

Lisboa, Portugal 2685-011
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(+351) 91 360 8404
Adrian Leon

PROFILE:

Pursuing a research career path on Intelligence comprehension, Intelligent Systems and Brain-Inspired methods. Fascinated by the research aiming to understand the origin of intelligence and to further apply them in artificial machines. Keen interest in multidisciplinary work using programming and engineering skills towards real impacts in society.

EDUCATION:

Tecnico Lisboa – PhD student Computer Science and Eng.
March 2023– Ongoing
Research in the field of Brain-Computer Interfaces. Link between the training process for mind controlling with mental health and wellbeing. Use of Virtual Reality, EEG devices, learning algorithms, among others.

Polytech Tours – Master in Microelectronics
Aug 2021 – Jul 2022
Stability and behavior of dynamical systems. Controller and observer design for non-linear systems. Electronic components, microcircuit fabrication and programming (C++).

Yachay Tech University – Engineer in Nanotechnology
Apr 2016 – Jul 2021
Bilingual program with research projects, internship and hands-on lab experience. Computational Physics for modelling and simulations (Python, Mathematica, Matlab). Biosignal processing for data analysis. Biomaterials design, synthesis, spectroscopy and characterization.

RESEARCH EXPERIENCE:

Research Assistant & Technician on VR Development
Jan 2022 – Jul 2022
Computational modelling of physical equations into the Unity environment (C#) for further rendering of 3D models. User interaction and data acquisition. Model research and accepted review articles of physics in immersive technologies.

LAAS/CNRS – Internship
March 2022 - Aug 2022
"Optimizing a brain-on-chip technology for neural recording and stimulation". Materials testing to enhance in-vitro measurements of neuronal activity and network communication.

Neuromatch Academy - Teaching Assistant
July 2021
Online school on computational neuroscience as teaching assistant. Guiding discussions, solving questions, tutor during coding sessions and projects development. Covering topics on biological principles, dimensionality reduction, Bayesian probability, machine learning methods, among others.

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Adrian Leon

PhD Student BCI

COMPUTATIONAL SKILLS:

Office software
Office, Latex,Origin

Operating systems
Linux, Windows

Programming language
Python, Mathematica, Matlab, HTML, Javascript, C++, C#

UI Software
Unity development platform for VR & AR, OpenBCI and OpenVibe.

LANGUAGES:

English (C1)

French (B2)

German (B1)

Spanish (Native)

MPI Human Cognition & Brain Sciences – Internship project
July 2020 – Sep 2020
Representation Similarity Analysis with fMRI data with Python and Matlab interfaces. Modelling BOLD fMRI data for *lexical representation at voxel level*. Stating the bases for a further developing project on decoding lexical meaning from fMRI signals

FU Berlin/Experimental Physics - Internship
June 2018 – Aug 2018
Characterization of Single Wall Carbon Nanotubes (SWCNT) and statistical analysis. Further ongoing research with results.

PROJECTS:

Yachay Tech University – Research Project Award
Jan 2022 – Dec 2022
Use of immersive technologies for relatively complex physics topics. XR environment development and testing compared to traditional education methods.

COURSES:

Neuromatch Academy – Deep Learning & Comp. Neuroscience
July 2020 / Aug 2021
Three-week guided tutorials on various machine learning approaches for data analysis. Reinforcement learning, generative models, supervised and supervised learning models. Including a policies comparative project between DDPG vs SAC. Generalized linear methods, dimensionality reduction, dynamic networks, Bayesian probability and network causality.

ETH Zurich – Computational Psychiatry
Sept 2020
Computational modeling one-week course for psychiatry disorders. Bayesian probability, models of perception and action selection.

CONFERENCES & PAPERS:

Immersive Technologies in Education – EDULEARN22
4th July 2022
Speaker and co-author of review article concerning the use of VR, AR and XR for learning/teaching physics in higher education.

Article SOLAR 2021 & Congress REDU VI
May 2022/Oct 2019
Co-author article at SOLAR 2021. Speaker with topic “Analysis of the solar resource for the installation of a photovoltaic power plant in a university campus”.