



## Europass-Curriculum Vitae



### Personal information

First name(s) / Surname(s) Pedro Filipe/ de Jesus Pereira Custódio  
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Nationality Portuguese  
Date of birth 09.02.1987

### Work Experience

Date August 2013 to August 2016  
Occupation or position held PhD fellow  
Main activities and responsibilities I was responsible for designing and validating a virtual reality application that combined real-time feedback of walking cycle (gait) and brain signals to study the Parkinson's Disease (PD). I analysed data acquired with electroencephalography (EEG) and gait analysis equipment using Matlab. I also coordinated with professionals from various institutions including neurologists and physiotherapists. The goal of this project was to help understand the role of cortical areas during gait in PD patients and the impact of repeated external stimuli on those areas.  
Name and address of employer Motek Medical BV  
Keienbergweg 77, 1101 GE Amsterdam, The Netherlands  
Date April 2011 to March 2013  
Occupation or position held Research fellow (FCT research grant PTDC/EIA-EIA/113660/2009)  
Main activities and responsibilities I was responsible for analysing of data acquired by biomedical equipment such as eye tracking devices and electroencephalography using Matlab. The project title was: 'Reading Analysis with Neurophysiologic Signals'. I developed an algorithm that returned where in a text participants had fixated their eyes.  
Supervisor Prof. Dr. Nuno Guimarães and Prof. Dr. Isabel Pavão Martins  
Name and address of employer Fundação da Faculdade de Ciências da Universidade de Lisboa  
Edifício C1 – 3.º Piso, Campo Grande, 1749-016 Lisbon, Portugal  
Date April 2011 to March 2013  
Occupation or position held Assitant researcher  
Main activities and responsibilities The research focused on the processing of eye contact in the subcortical pathway. I analysed the eye tracker data and designed the stimuli task.  
Supervisor Prof. Dr. Isabel Pavão Martins

### Education and training

Date August 2013 to present  
Title of qualification PhD (Marie Curie Grant – FP7 / 2012 under grant agreement No. 316639)

Principal subject	The PhD thesis title is: 'Virtual reality applications with EEG feedback for defining balance and gait parameters in Parkinson's Disease'. During this project I worked with patients suffering from the Parkinson's disease, I measured gait parameters and brain signal during gait tasks, using a EEG system and a Virtual reality lab.
Name of organisation	MOVE Research Institute, Vrije Universiteit of Amsterdam Amsterdam, The Netherlands
Date	September 2008 to October 2010
Title of qualification awarded	MSc in Biomedical Engineering
Principal subjects/occupational skills covered	General: mathematics, physics, management, computing, medical sciences (anatomy and biomechanics of movement), biology, chemistry and science applied to medical equipment. Master Thesis: 'Use of EEG as a Neuroscientific Approach to Advertising Research'.
Name of organisation providing education and training	Instituto Superior Técnico Lisbon, Portugal (In collaboration with Faculty of Medicine, University of Lisbon).
Level in national classification or international classification	17 / 20 (national classification) or ISCED 5 (international classification)
Date	September 2005 to July 2008
Title of qualification awarded	BSc. in Biomedical Engineering
Name of organisation providing education and training	Instituto Superior Técnico Lisbon, Portugal (In collaboration with Faculty of Medicine of Lisbon, University of Lisbon)
Level in national classification	13 / 20 (national classification)

## Memberships

Member of "Sociedade Portuguesa de Neurologia do Comportamento (Portuguese Society of Behavioral Neurology)"

## Publications

### Articles in international journals

Mares, I., Custódio, P., Fonseca, J., Bentes, C., Guerreiro, M., Guimarães, N., & Martins, I. P. (2015). To read or not to read: a neurophysiological study. *Neurocase*, 21(6), 793-801.

### Working papers

Custódio, P., Praamstra, P., Harlaar, J., Steenbrink, F., van Wegen, E.E.H. (2016). EEG recording during walking: a methodology review.

### Published Conference Abstracts

Custódio, P., Praamstra, P., Harlaar, J., Steenbrink, F., van Wegen, E.E.H. (2015). EEG recording during walking: a methodology review. The 9th VUmc Science Exchange Day.

Custódio, P., Mares, I., Guimarães, N., Martins, I., Frota, S., Severino C. (2011). Eye movements as markers for cognitive processing in continuous reading. The 2nd International Conference on Eye Tracking, Visual Cognition and Emotion, Lisbon, Portugal (**presenter**).

## Workshops and Courses

Date	August 30 – September 04, 2015
Moving Beyond Summer School	The focus of the summer school was on developing soft skills, e.g. writing of grant proposals, and lectures about translational research. I was among the organizers of the event, in particular I was part of the scientific committee.
Date	June 15-21, 2014

European Computational Motor Control 2014 Summer School Summer school organized by the Euromov laboratory of the University of Montpellier and the Division of Physical Therapy and Biokinesiology at the University of Southern California. The main goal was to promote the field of Computational Motor Control in Europe and develop Matlab skills in this field.

Date September 3-8, 2012

1<sup>st</sup> Cognitive and Affective Neurophysiology Summer School The summer school was focused on acquisition, processing and analysis of EEG signal and was held at the Laboratory of Neurophysiology of the Faculty of Psychology and Education Sciences of the University of Porto.

Date October 10, 2011 – December 22, 2011

Artificial Intelligence Online course of Introduction to Artificial Intelligence. Organized by Prof. Dr. Sebastian Thrun and Prof. Dr. Peter Norvig in partnership with Stanford Engineering. Final Score of 76%.

Date April 27-29, 2010

Social Cognition and ERP workshop Workshop about the study of event-related potentials (ERP) in EEG, organized by the University of Lisbon in collaboration with Prof. Dr. Bruce D. Bartholow of the University of Missouri.

**Personal skills and Competences**

First Language **Portuguese**

Other language(s)

TOEFL Score

Reading	Listening	Speaking	Writing	Total
High (26/30)	High (28/30)	Good (25/30)	Good (25/30)	103/120

Self-assessment  
*European level (\*)*

**English**

**Spanish**

**Dutch**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production		Writing	
C2	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C2	Proficient user
B1	Independent user	B2	Independent user	A1	Basic user	A2	Basic user	A1	Basic user
A2	Basic user	A2	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(\*) *Common European Framework of Reference for Languages*

Social skills and competences

- Team spirit: I have worked in teams throughout my academic career.
- Able to adapt to multicultural and multilingual environments.
- Good communication skills.

Organisational skills and competences

- During my PhD and MSc I had to present various conferences, give lectures, and manage different projects.
- Experience in projects and team management, gained during my degree.
- Organized and methodical.

Technical skills and competences

- Technical skills in areas such as: medicine, medical equipment, data analysis, and IT.

Computer skills and competences

- Good command of Microsoft Office tools (Word, Excel and PowerPoint).
- Proficient user and good knowledge of Matlab, Mathematica, C++ and Python.
- Proficient user and good knowledge of Matlab's toolboxes for treating EEG data, e.g., EEGLAB and Fieldtrip.
- Knowledge of programs for experimental design such as E-Prime and SuperLab.

## References

- Erwin van Wegen e.vanwegen@vumc.nl  
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