



Pedro Miguel Teles da Fonseca

Curriculum Vitae

☎ +351 *** ** *

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EDUCATION

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| 2017 – | PhD in Applied Mathematics for Economics and Management
ISEG Lisbon School of Economics and Management
Research center: CEMAPRE – Center for Applied Mathematics and Economics
Research topic: Bayesian model selection and hypothesis testing |
| 2016 – 2018 | Postgraduate Degree in Statistical Systems
NOVA Information Management School
Specialization: Central Banks' Statistics
Program fully taught in English |
| 2014 – 2016 | Master's Degree in Applied Econometrics and Forecasting
ISEG Lisbon School of Economics and Management
Thesis: Digit Analysis Using Benford's Law, a Bayesian Approach
One course taught in English |
| 2010 – 2014 | Bachelor's Degree in Economics
ISEG Lisbon School of Economics and Management
Five courses taught in English |

EXPERIENCE

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| 2020 – | ISEG Lisbon School of Economics and Management
Visiting Assistant Professor, Department of Mathematics
Currently teaching the following undergraduate courses:
- Statistics I (probability theory, random variables, probability distributions, sampling distributions)
- Statistics II (estimation, hypothesis testing, non-parametric methods, linear regression, forecasting) |
| 2017 – 2020 | FCT - Foundation for Science and Technology
Research Fellow
Conducted research as part of my PhD program. Research field: Bayesian model selection and hypothesis testing. Worked on applications that included fraud detection and bibliometrics. |
| 2016 – 2017 | Bank of Portugal
6 months traineeship, Department of Statistics
Compilation of official statistics from the securitization entities operating in Portugal and from the national financial accounts, for dissemination and reporting purposes. Automation of processes regarding the generation and update of the lists of entities from the Portuguese non-monetary financial sector to be considered in the production of official statistics, using VBA, SQL and SAS programming. |
| 2015 | BANIF - Banco Internacional do Funchal
6 months internship, Department of Transformation and Systems
Modelling and extraction of information from BANIF's data warehouse, using SAS Enterprise Guide and SQL programming, and integration with information from other internal sources. Data analysis and data quality management. Exploratory analysis of data from BANIF's help desk. Participation in the AnaCredit project, which consists in the implementation of a detailed database of individual bank loans in the euro area, harmonized across all member states. |

2013	UECE - Research Unit on Complexity and Economics Research Fellow Project motivated by the 2012 Nobel prize in economics, awarded to Alvin Roth and Lloyd Shapley for their theory of stable allocation in two sided matching markets, also known as the stable marriage problem. I integrated a team which investigated the adequacy of the matching algorithms used in some Portuguese two sided matching markets, such as the ones used by governmental agencies to assign students to public schools.
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AWARDS AND DISTINCTIONS

2016	Best master's degree final project Highest grade in a final project in the Master's in Applied Econometrics and Forecasting since 2013
2014	Best student in the Statistics II course Highest grade among 155 undergraduate students

PUBLICATIONS

Articles

2019	Carneiro, Inês, Rita Ramos, Pedro Fonseca, Teresa Martins, Filomena Pereira and Manuela Braga (2019). Time to diagnosis of pediatric oncologic disease: ten-year experience from level II hospital. <i>Nascer e Crescer - Birth and Growth Medical Journal</i> 28 (4), 179 – 184.
2019	Carneiro, Inês, Pedro Fonseca and Rosário Ferreira, (2019). Children's Sleep Habits Questionnaire in Two Subpopulations from Cape Verde and Mozambique: Exploratory and Regression Analysis. <i>Acta Médica Portuguesa</i> 32 (10), 628 – 634.

Conference Proceedings

2017	Carneiro, Inês, Pedro Fonseca, and Rosário Ferreira (2017). Sleep habits and sleep disturbances in a pediatric population of Cabo Verde. <i>Sleep Medicine</i> 40 (Suppl 1), e210 – e211.
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Open-Source Software

2020	Fonseca, Pedro (2020). <i>inspector</i> : Validation of Arguments and Objects in User-Defined Functions. R package available for download on CRAN. Official website: ptfonseca.github.io/inspector .
2020	Fonseca, Pedro and Rui Paulo (2020). <i>pcal</i> : Calibration of P-values for Point Null Hypothesis Testing. R package available for download on CRAN. Official website: https://ptfonseca.github.io/pcal .

COMMUNICATIONS

Workshops Lectured

2020	Introduction to R Programming 12 hours of online workshops. Organization: YES - Young Economics Society
2020	Intermediate R Programming 4 hours of online workshops. Organization: YES - Young Economics Society

Poster Presentations

2019	Bayesian Digit Analysis O'Bayes 2019 – Objective Bayes Methodology Conference University of Warwick, UK
2019	Asthma, Allergic Rhinitis and Sleep Quality in a Pediatric Population from Mozambique XXV Jornadas de Pediatria Santa Maria Hospital, Lisbon, Portugal
2017	Sleep Habits and Sleep Disturbances in a Pediatric Population of Cape Verde World Sleep Congress 2017 Prague, Czech Republic

COMPLEMENTARY EDUCATION

Summer School

2018	Laboratory of Experimental Economics ISEG Lisbon School of Economics and Management
2017	Introduction to Python with applications to Artificial Intelligence NOVA Information Management School
2016	Computational Bayesian Statistics Faculty of Sciences of the University of Lisbon
2014	MATLAB ISEG Lisbon School of Economics and Management
2013	Banking & the Financial Crisis Nyenrode Business University, Breukelen - Netherlands

Extracurricular Courses

2018	Big Data Course from the MSc in Applied Econometrics and Forecasting ISEG Lisbon School of Economics and Management
2016	Computation Course from the MSc in Quantitative Methods for Decision-making in Economics and Business ISEG Lisbon School of Economics and Management

Online Courses

2018	Intro to SQL for Data Science Datacamp
2018	Introduction to Shell for Data Science Datacamp
2017	Querying with Transact-SQL Microsoft course, attended through edX
2017	Introduction to Python for Data Science Microsoft course, attended through edX
2017	Programming with R for Data Science Microsoft course, attended through edX
2017	Introduction to R for Data Science Microsoft course, attended through edX
2013	Markets with Frictions University of Wisconsin-Madison Online, attended through Coursera
2013	Introduction to Mathematical Thinking Stanford University Online, attended through Coursera
2013	Game Theory Stanford University Online, attended through Coursera

Language Courses

2005	First Certificate in English British Council
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FUNDING AND SCHOLARSHIPS

2019	O'Bayes 2019 travel grant Travel grant to attend and present a poster at O'Bayes 2019 – Objective Bayes methodology conference (Warwick - UK) Funding institution: University of Warwick
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2019	O'Bayes 2019 funding Financial support to attend and present a poster at O'Bayes 2019 – Objective Bayes methodology conference (Warwick - UK) Funding institution: CEMAPRE - Center for Applied Mathematics and Economics
2017	PhD scholarship Full tuition funding + monthly stipend and supplementary support. Duration: Up to 4 years Funding institution: Foundation for Science and Technology
2016	Funding for postgraduate degree in Statistical Systems Full tuition + fees Funding institution: Bank of Portugal
2012	Research fellowship Monthly stipend. Duration: Six months UTL/Santander Totta Scientific Awards Scientific field: Game Theory. Topic: Two-sided matching markets in Portugal Technical University of Lisbon Host Institution: UECE - Research Unit on Complexity and Economics

WORKSHOPS

Organized

2018	LaTeX Typesetting Language, an Introductory Tutorial , ISEG Lisbon School of Economics and Management
2018	MATLAB, an Introductory Tutorial , ISEG Lisbon School of Economics and Management

Attended

2020	Intro to Machine Learning with Tidymodels , 4 hours of workshop, R/Medicine 2020 pre-conference workshop lectured by Alison Hill (Rstudio)
2018	Tidyverse & Shiny: From data manipulation to the interactive presentation of results in interactive apps , 10 hours of workshop, Alambra Consulting

CONFERENCES ATTENDED

2021	R/Medicine 2021 , Virtual conference hosted by the R consortium
2020	DSPA Insights Week 2020 , Virtual conference hosted by DSPA
2020	R/Medicine 2020 , Virtual conference hosted by the R consortium
2019	O'Bayes 2019 - Objective Bayes Methodology Conference , University of Warwick, UK
2018	Data Science for Hospitality and Tourism , Rectorate of the Nova University of Lisbon
2018	Insights 2018 – Data Science and Artificial Intelligence Conference , Rectorate of the Nova University of Lisbon

SEMINARS ATTENDED

2018	Writing for Publication in Top Journals: Tips and Insights , NOVA Information Management School
2018	Road to Success: a guide for doctoral students and junior faculty members in the behavioral and social sciences , NOVA Information Management School
2016	The Future of Official Statistics: Potentials and Challenges , Rectorate of the Nova University of Lisbon

COMMUNITY INVOLVEMENT

Peer-Reviewer

Since 2019	Acta Médica Portuguesa , the scientific journal of the Portuguese Medical Association (<i>Ordem dos Médicos</i>)
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Non-Profit Associations

Since 2018	Data-Hub Co-Founder and Instructor Data Hub is a Data Science club founded by PhD and MSc students with the mission of raising awareness to the importance of Data Science amongst economics and business students and promoting knowledge and expertise sharing through meetings and workshops in order to provide students with the tools they need to turn data into knowledge and succeed in analytics-oriented tasks.
2010 – 2011	AEISEG - ISEG Student's Union Department of Marketing

COMPUTER SKILLS

Programming	R, SQL, Bash, SAS, VBA, Wolfram, JAGS, Stan, Python, Git and GitHub
Markup	Markdown, R Markdown, LaTeX, Beamer, HTML and CSS
Software	R Studio, Excel, Word, Power Point, Teams, Zoom, Math Type, Solver, Eviews, Stata, MATLAB, Base SAS, SAS Enterprise Guide, SAS Enterprise Miner, SAS Studio, SQL Server, Wolfram Mathematica, VirtualBox and Visual Studio Code
Operating Systems	MacOS, Ubuntu and Windows