

## Pedro Miguel Teles da Fonseca

Curriculum Vita

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## **EDUCATION**

## 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 field: Bayesian hypothesis testing

#### 2016 – 2018 | Postgraduate degree in Statistical Systems

Specialization: Central Banks' Statistics NOVA Information Management School

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

## 2017 - FCT - Foundation for Science and Technology

#### Research fellow

Conducting research in order to obtain a PhD. Research field: Bayesian model selection, hypothesis testing and multiplicity adjustment. Working on applications that include fraud detection and bibliometrics.

#### 2016 – 2017 | Bank of Portugal

#### 6 months traineeship, Department of Statistics

Compilation of official statistics from the securitization corporations operating in Portugal, and from the national financial accounts, for dissemination and reporting purposes. Automation of processes regarding the generation and update of the list of entities belonging 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 Wharehouse using SAS Enterprise Guide and SQL, 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 that investigated the adequacy of matching algorithms used in some Portuguese two sided matching markets, including the assignment of students to public schools.

## **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. Nascer e Crescer - Birth and Growth Medical Journal 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. *Acta Médica Portuguesa* **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. *Sleep Medicine* **40**(Suppl 1), e210, e211.

## 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

## FUNDING AND SCHOLARSHIPS

#### 2019 O'Bayes 2019 travel grant

Funding institution: University of Warwick

Travel grant to attend and present a poster in the O'Bayes 2019 - Objective Bayes methodology conference, Warwick - UK

2019 **O'Bayes 2019 funding** 

Funding institution: CEMAPRE - Center for Applied Mathematics and Economics

Financial support to attend and present a poster in the O'Bayes 2019 - Objective Bayes methodology conference, Warwick - UK

2017 PhD scholarship

Funding institution: Foundation for Science and Technology.

Full tuition funding + monthly stipend and supplementary support. Duration: Up to 4 years

2016 Funding for postgraduate degree in Statistical Systems

Funding institution: Bank of Portugal

Full tuition

## 2012 Research fellowship

UTL/Santander Totta Scientific Awards

Scientific field: Game Theory. Topic: Two-sided matching markets in Portugal

Monthly stipend. Duration: Six months

## 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

## 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 Course Units 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**

2010	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

2018 | Intro to SQL for Data Science

## COMMUNITY INVOLVEMENT

#### Peer-Reviewer

Since 2019 | Acta Médica Portuguesa, the scientific journal of the Portuguese Medical Association (Ordem dos Médicos)

## Non-Profit Associations

Since 2018 | Dat

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

## 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

2018 Tidyverse & Shiny: From data manipulation to the interactive presentation of results in interactive apps, 10 hours of workshop, Alambra Consulting

## OTHER CONFERENCES ATTENDED

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

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

## Computer Skills

Programming | R, SQL, Bash, SAS, VBA, Wolfram, Python, JAGS, Stan, 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