

# JOÃO PEREIRA

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## EXPERIENCE

*Jul 2020 to May 2021*



**Research fellowship,**

*Instituto Nacional de Saúde Doutor Ricardo Jorge (Portugal),*

Grant number: Projeto nº 692 2ª edição do RESEARCH4COVID, FCT, Portugal.

## EDUCATION

2019 - 2022



**Master's degree in Bioinformatics and Applications to Life Sciences,**

*University of Trás-os-Montes and Alto Douro (Portugal),*

Final grade: 16.

2015 - 2019



**Batcheler's degree in Biochemistry,**

*University of Trás-os-Montes and Alto Douro (Portugal),*

Final grade: 13.

## TECHNICAL SKILLS

### ⚡ Programming

#### Intermediate knowledge

**R** – Statistical analysis, mathematical models, OOP, package development, Shiny.

**Python** – Statistical Analysis with Pandas, OOP, basic machine learning using TensorFlow and Keras.

#### Basic knowledge

C, Java, Matlab, SQL, Arduino.

### ≡ Typesetting

ℒ<sub>T</sub>X, Markdown.

### ✂ Tools

Power BI, Hugo framework, Windows and Linux, Intermediate Microsoft Office and LibreOffice.

### 🗣 Languages

**Portuguese** – native speaker

**English** – B2

## ACADEMIC/SCIENTIFIC WORK

### Distinctions

**Best Porster** – Portuguese National Statistics Meeting (SPE21), Evora 2021.

### Publications

- [May 2021] Mathematical Modelling of the Impact of Non-Pharmacological Strategies to Control the COVID-19 Epidemic in Portugal;  
*Constantino Caetano, Maria Morgado, Paula Patrício, João Pereira, Baltazar Nunes;*  
doi:10.3390/math9101084
- [Nov 2021] The impact of vaccination on the evolution of COVID-19 in Portugal;  
*Beatriz Machado, Liliana Antunes, Constantino Caetano, João F. Pereira, Baltazar Nunes, Paula Patrício, M. Luísa Morgado;*  
doi:10.3934/mbe.2022043
- [Oct 2022] Measuring the impact of COVID-19 vaccination and immunity waning: a modelling study for Portugal;  
*Constantino Caetano, Maria Luísa Morgado, Paula Patrício, Andreia Leite, Ausenda Machado, André Torres, João Freitas Pereira, Sónia Namorado, Ana Sottomayor, André Peralta, Baltazar Nunes;*  
doi:10.1016/j.vaccine.2022.10.007

### Preprints

- [Mar 2022] COVID-19 Hospitalisation in Portugal, the first year: Results from hospital discharge data;  
*João F. Pereira, Constantino Caetano, Liliana Antunes, Paula Patrício, Maria Luísa Morgado, Baltazar Nunes;*  
doi:10.1101/2022.03.03.22271349

### Other works

**Poster presentation** – *Portuguese National Statistics Meeting (SPE 2021), Évora (13–16 Outubro, 2021).*

title: "COVID-19 Hospitalization in Portugal: Results from hospital discharge data"

**Seminar presentation** – *Ciclo de Seminários em Matemática Aplicada e Ciência de Dados (CS-MACD).*

title: "Análise de dados COVID-19 em Portugal", 7 de October 2022, UTAD.

link: <https://sites.google.com/view/cs-macd/home>