

VASCO NEVES, PH.D.

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[vasconeves.github.io](https://github.com/vasconeves) • github.com/vasconeves

DATA SCIENTIST

Proven aptitude for rapid learning, analytical thinking, and problem-solving. Recognize data trends and unique insights to drive business creativity.

Versatile and adaptable professional with extensive experience in data science and research, utilizing analytical, statistical, and numerical tools in Python and R to extract valuable insights from data. Thorough knowledge in machine learning and artificial intelligence covering supervised, unsupervised, and reinforced learning. Skilled in statistical inference, hypothesis testing, Bayesian statistics, and generalized regression.

Core Competencies

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|----------------------------------|------------------------|----------------------------|
| • Critical thinking | • Data Science & ML/AI | • Creative Problem Solving |
| • Strategic Planning & Execution | • Technical Reports | • Data visualization |
| • Statistical/Numerical Modeling | • Python & R | • Project Management |
| • Executive Communication | • Process Optimization | • Team Leadership |

Technical Skills

Python (Packages: NumPy, SciPy, Statsmodels, Pandas, Matplotlib, Seaborn, Plotly, Cufflinks, Scikit-Learn, Keras, Tensorflow, Pytorch, apyori, causalimpact), R (packages: TidyR, Car, Ae, Dplyr, Plyr, Rdd, Modelr, Statmod, Ggplot2, Cowplot, Curl, Dplyr), Causal Impact Analysis, Time Series Analysis, SQL, Tableau, MATLAB, Fortran, Digital Fabrication (3D CAD Design, 3D Scanning, 3D Printing, CNCs, Electronic Circuit Design & Circuit Making, IoT device programming, networking, and communication), Embedded Programming (Arduino and ESP32), Microsoft Office Suite.

<https://fabacademy.org/2021/labs/benfica/students/vasco-neves/>

Professional Experience

2021 to Present • UNIVERSIDADE DE AVEIRO - IBIMED / DEPARTAMENTO DE CIÊNCIAS MÉDICAS • Aveiro, Portugal
DATA SCIENCE RESEARCHER

Leverage expertise in Genome Wide Association Studies (GWAS) pipelines to calculate Polygenic Risk Scores (PRS).

papers: 24; # citing papers: 1278; # citations / paper: 71.8; h-index: 20

- Publish a review paper encompassing 100 methods for PRS calculation, a thorough endeavor evidenced by 240+ references.
- Engage in scientific research using data science techniques within the realm of medical sciences including developing innovative tools for personalized medicine, and contributing to population studies.

2020 to 2021 • ASSOCIAÇÃO PORTUGUESA DE EDUCAÇÃO AMBIENTAL • Aveiro, Portugal

PROJECT COORDINATOR

Served as the Project Coordinator overseeing a transition from in-person to remote learning for participating students.

students: 1650, # teachers: 70, # measurement sessions: 90

- Led the development of low-cost, open-source sensors for air quality measurements.
- Contributed to the creation of a WebSIG platform, facilitating collaborative mapping initiatives using applied statistics and data science principles, based on air quality and noise monitoring campaigns to gather valuable environmental data.
- Conducted comprehensive accredited training sessions for high school teachers as well as training for students, instructing on air quality & noise measurements and collaborative mapping techniques.
- Successfully guided the publication of student-generated data, with the primary objective of raising awareness and advocating for public measures addressing environmental concerns.
- Authored an e-book on best practices in collaborative mapping activities.

2016 to 2019 • INSTITUTO FEDERAL DO PARANÁ • Foz do Iguaçu, Brazil

PHYSICS PROFESSOR

Instructed several physics subjects, involving laboratory and theoretical classes.

- Served as the Coordinator of the Physics course at IFPR in 2018.
- Led research projects as the coordinator in the realm of open-source hardware, overseeing initiatives such as telescope dome automation, 3D printer development, and plastic extruder advancements.

2014 to 2015 • CNPQ-MCT • Natal, Brazil

POST DOCTORAL FELLOW

Conducted advanced studies on M stars at UFRN, Natal, BR utilizing data science tools.

- Secured a competitive Young Talents Grant from the Brazilian Ciência Sem Fronteiras program.
- Demonstrated project proposal competence resulting in the publication of multiple research papers.
- Functioned as a referee, contributing to document review processes.

2009 to 2013 • Centro de Astrofísica da Universidade do Porto • Porto, Portugal

GRADUATE RESEARCHER

Researcher with FCT PhD Fellowship focusing on astrophysics, using data science methodologies to analyze and model data.

- Developed strong research skills and collaborative teamwork, resulting in the successful publication of 10+ articles.
- Adapted to different cultural environments, showcasing flexibility and intercultural competence.
- Effective communicator of complex concepts to diverse audiences, including experts, high school students, and the public.

Education

Doctor Of Philosophy (Ph.D.), Astronomy • Universidade do Porto/Université Joseph Fourier (Grenoble I)

Master of Science, Physics • Universidade de Aveiro

Bachelor of Science Degree, Physics • Universidade de Aveiro

Professional Development

Statistics and Data Science • MITx MicroMasters

Notable competencies include:

- Machine learning algorithms and applications, such as automatic review analysis, recommender systems, image recognition, and reinforcement learning using Python code, statistical models, estimation methods, hypothesis testing, Bayesian statistics, and generalized linear regression, R language environment.

Postgraduate Degree, Clinical Trials • Faculty of Medicine of the University of Lisbon

Notable competencies include:

- Covering foundational elements, including key concepts, epidemiological principles, and crucial ethical and regulatory dimensions. Participants gained insights into GCP inspections, drug development, and CT protocols.
- Exploring experimental medications into data analysis intricacies, and extends to ECS center management, involving CT submission processes.
- Emphasizing critical analysis, highlighting evidence-based medicine, bio-equivalence studies, and IT applications.
- Navigating First in-Human trials, explore innovation, and broaden their understanding to include pharmacovigilance.
- Global perspective addressing CT management "across borders," economic analysis, and the significance of real-world data.

Language skills

- Portuguese – native tongue
- English – proficient user (C2+)
- French – Independent user (A2-B1)
- Spanish – Basic user (A2+)

Other information

- I like European, forró, lindy-hop, and other dances.
- There are rumors I have been a European dance DJ here and there.
- I have a LOT of interest in open-source projects, namely open-source ecology, social and appropriate technology projects, and self-sufficiency projects in general.
- I really enjoy movies, especially independent ones.