# VASCO NEVES, PH.D.

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## 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*

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

## *Professional Experience*

### 2021 to 2024 • UNIVERSIDADE DE AVEIRO - IBIMED / DEPARTAMENTO DE CIÊNCIAS MÉDICAS • Aveiro, Portugal
#### ASSOCIATE RESEARCHER

*Leverage expertise in Genome Wide Association Studies (GWAS) pipelines to calculate Polygenic Risk Scores (PRS).*
*Career impact: # 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.

Tech stack: Python, R, Statsmodels, Numpy, Scipy, Pandas, Matplotlib, Seaborn, Scikit-Learn, Supervised/Unsupervised ML, A/B Testing, Github

### 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.*
*Project impact: # 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.

Tech stack: Python, Numpy, Scipy, Pandas, Matplotlib, Supervised/Unsupervised ML, Digital Fabrication (3D Design & Printing), IoT device programming, embedded programming, Open-Source Hardware, Model deployment

### 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.

Tech stack: Python, Numpy, Scipy, Matplotlib, Digital Fabrication (3D Design & Printing), embedded programming, Electronic Circuit Design & Circuit Making, Open-Source Hardware

### 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.

Tech stack: Python, Numpy, Scipy, Matplotlib, Seaborn, Scikit-Learn, Supervised/Unsupervised ML, A/B Testing, Github

**2009 to 2013 • Centro de Astrofísica da Universidade do Porto •** Porto, Portugal
GRADUATE RESEARCHER
*Researcher with FCT PhD Fellowship (rank:1) focusing on astrophysics, using data science methodologies to analyze and model data.*

- Research work resulted in the successful defense of PhD with honors.
- Developed strong research skills and collaborative teamwork, resulting in the successful publication of 10+ articles, including the co-authorship of the discovery of the first Earth type planet in the Habitable Zone of a M-dwarf star.
- 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.

Tech stack: Python, R, Numpy, Scipy, Matplotlib, Seaborn, Scikit-Learn, Supervised/Unsupervised ML, A/B Testing, Github, Model deployment

## *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*

Data Science professional Certificate • Data Science Infinity
*Notable competencies include:*
SQL, Python 3x, Statistics & DS, A/B Testing, Github, Deep Learning, Docker, ML data preparation, Applied Supervised and Unsupervised ML, ML Model Deployment, Business Focused Data Science, Data Viz with Tableau, Data Storytelling

Micromasters, Statistics and Data Science • MITx
*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

## *Technical skill competency*

Python (Packages: NumPy, SciPy, Statsmodels, Pandas, Matplotlib, Seaborn, Scikit-Learn), R, Time Series Analysis, Supervised/Unsupervised Machine Learning, A/B Testing, MATLAB, Fortran, Office Suite.

## *Exploratory Technical Skills*

Python packages: Plotly, Cufflinks, Keras, Tensorflow, Pytorch, apyori, causalimpact), R packages: Tidyr, Car, Ae, Dpblyr, Plyr, Rdd, Modelr, Statmod, Ggplot2, Cowplot, Curl, Dplyr), Causal Impact Analysis, Model Deployment, Deep Learning, SQL, Tableau, Github, Docker, Digital Fab. (3D CAD Design, 3D Scanning, 3D Printing, CNCs, Electronic Circuit Design & Circuit Making, IoT device programming, networking, and communication), Embedded Programming (Arduino and ESP32),
https://fabacademy.org/2021/labs/benfica/students/vasco-neves/

## *Language skills*

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