Joana Sofia Baião Vieira

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EXPERIENCE

Bosch   Remote
Data Scientist   *Feb. 2023 - Present*
- Developed machine learning models to predict employee turnover across five Bosch locations. Implemented the models in Python using scikit-learn and Keras for algorithm development, and SHAP to provide interpretable insights into predictions.
- Applied time series forecasting for key HR metrics (headcount, average age and exit ratio) using SARIMA and TES models. Incorporated these time series models into interactive Python visualisations using Power BI.
- Automated data processing steps for the HR Data Science and Data Analytics teams.
- Currently working on route optimisation to improve transport services for company employees. Using Google OR-Tools for efficient route planning and Folium to create interactive visualisations.

CISUC   Coimbra, Portugal
Research Fellow   *Nov. 2020 - Oct. 2022*
- Developed a Machine Learning algorithm that can predict the course of multiple sclerosis in a specific time window, considering results from a single visit and sequences of consecutive visits (time series). The pipeline was implemented in Python using the Scikit Learn and Keras libraries.
- Exploration of explainability methods to analyse the overall behaviour of the developed Machine Learning models and specific predictions for particular patients.

jeKnowledge (Junior Enterprise)   Coimbra, Portugal
CEO   *May 2021 - May 2022*
- Led a Junior Enterprise with 55 students, developing and supervising 68 projects (development, data science and design).
- Increased internal and external growth and the quality of the work developed, with a 224.76% surge in business volume, a 70.83% increase in projects, and a 6.83% rise in client feedback.

Innovation Consultant   *Apr 2019 - May 2021*
- Project Manager of jeK Magazine 1st-4th editions and Porto Blockchain Conference 1st edition.
- Logistics team of the data science hackathon Data, Set, Go!.
- Coordinated tech-related events: bluesessions, AI Sunsets, Shift APPens, .works, jeKnowledge Academy, and Coimbra.blockchain.

CFisUC   Coimbra, Portugal
Research Fellow   *July. 2020 - Oct. 2020*
- Designed an algorithm using Python that automatically calculates the number of vessels, their diameter and the number of bifurcations from 3D views of a vascular network.

EDUCATION

University of Coimbra   Coimbra, Portugal
Integrated Master's in Biomedical Engineering   *Sep. 2017 - Oct. 2022*
- Bachelor's degree in Biomedical Engineering
- Master's degree in Clinical Informatics and Bioinformatics.
- Relevant coursework: Medical informatics, Machine Learning, Statistics and Databases

PROFESSIONAL CERTIFICATES

Coursera
- AI for Medicine Specialisation: Medical Diagnosis, Prognosis, and Treatment   *Dec. 2023*
- Natural Language Processing with Probabilistic Models   *Nov. 2023*
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularisation and Optimisation *Oct. 2023*
- Natural Language Processing with Classification and Vector Spaces   *Sep. 2023*
- Neural Networks and Deep Learning   *Sep. 2023*

SKILLS AND TECHNOLOGIES

Languages and Technologies	Python (e.g. Pandas, NumPy, Scikit Learn, Matplotlib, Seaborn, Keras), Matlab, SQL, Power BI, Java, HTML/CSS
Languages	**Portuguese**, English