MILLENA SANTOS

Contacts

910 196 080

freitasmillena27@gmail.com

https://millenasantosresume.netlify.app/

https://github.com/freitasmillena

Education

FCE - First Certificate of English
University of Cambridge
2015

High School Degree
Instituto Federal do Rio de Janeiro
2013-2017 |A specializing course in chemistry within the degree and an internship at Procter and Gamble's microbiology lab.

Software Engineering
University of Minho
2020-2023 | Grade: 16.111

Master's at Software Engineering
University of Minho
2023-present
Intelligent Systems and Knowledge Engineering

Soft Skills

- Work under pressure
- Critical Thinking
- Teamwork
- Communication and active listening
- Problem Solving
- Time management
- Adaptability

Tech Skills

Python	Haskell	Javascript	C
HTML	CSS	Java	Go
Node	Pug	Express	Docker
MongoDB	MySQL	React	
LaTeX	Microsoft Office	Github Actions	

Volunteer

SEI 23
Program Organization and Staff

Experience

June 2024 - Present

Researcher

Centro ALGORITMI

- Research and test data augmentations techniques for time-series data;
- Develop a Python-based system to model environmental processes.

July 2023 - September 2023

Summer Internship

Checkmarx

- Documentação sobre todos os GitHub Workflows no repositório do KICS;
- Criação de GitHub Workflows para automatizar o processo de validação de PR e issues;
- Manutenção e suporte aos membros da comunidade;
- Implementação de suporte no KICS para inspeção de GitHub

July 2022 - September 2022

Summer Internship

Checkmarx

- Learned about vulnerabilities and how to prevent them in different programming languages;
- Inspected code to analyze if it was vulnerable or not and why;
- Developed a ticket application using React, Node Express and MySQL;
- Researched about how to prevent common vulnerabilities regarding React and Node, whether it provides a bult-in protection or not.

University Projects

VectorRace
Artificial Intelligence | Python
For each map in this racing simulation game, results related to the best paths are calculated and presented according to the BFS, DFS, Greedy, and A-Star search algorithms.

Processing, Exploration, Modeling, and Evaluation
Intelligent Learning and Decision-making | Knime
Several data processing techniques were explored, along with their impact on the outcome. In order to predict the obesity level and air quality, data treatment techniques such as downsampling, upsampling, and binning were explored. Additionally, supervised and unsupervised learning models were implemented, including decision trees, neural networks, clustering, linear regression, polynomial regression, random forest, and gradient boosted trees.

Processing, Exploration, Modeling, and Evaluation
Data and Machine Learning | Python
numpy, panda, matplotlib, seaborn, tensorflow, keras, scikit-learn, entre outros
In order to predict the amount of CO2 emitted by vehicles and the level of electric injection, an analysis of these two datasets was conducted, including data processing and exploration. Various models such as linear regression, random forest, SVR, decision trees, SVM, bagging, boosting, XGBoost, stacking, and max voting were implemented. The GridSearch technique was also explored to optimize the model performance by finding the best combination of parameters, and the results were analyzed and compared.

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Tech Skills

Python Haskell Javascript C
HTML CSS Java Go
Node Pug Express Docker
MongoDB MySQL React
LaTeX Microsoft Office Github Actions

Volunteer

SEI 23
Program Organization and Staff

University Projects

Music Generation with LLM
Trained MusicGen to generate desgarradas.

A MultiAgent System to manage MemeCoins Portfolio
Developed a multiagent system in Python to manage Memecoins portfolio by scraping tweets and trending topics and deciding to buy or sell. It also calculates profit and loss set by the user in order to maximize its profit.

ElderWatch
Android Kotlin application to detect falls and send notifications with the user's location.

DataBases Migrations
Migration of an Oracle Database to MongoDB and Neo4j, including procedures, views and triggers.

DNS System
Comunicações por Computador | Java
Implementation of a DNS (Domain Name System) where servers communicate with each other within a hierarchy in order to answer client requests.

Resource Sharing Application
Web Engineering | HTML, CSS, JavaScript, Pug, Node, Express, Python, MongoDB
A web application for uploading educational resources such as articles, reports, exercise solutions, among others. Users can choose to make resources available publicly or privately by selecting pre-created groups or individual users. There are three levels of permission: administrator, creator, and reader. Users can save resources as favorites, download them, preview them, comment, and react to comments. Additionally, there is a news section that updates whenever a new resource is added.

Management System for Electric Scooters
Distributed Systems | Java
A system capable of managing the fleet of electric scooters, where users can rent the nearest scooter, park it, receive rewards for completing proposed routes, and receive notifications.

Streaming Service
Network Service Engineering | Python
A multicast video streaming system for clients. A resilient dynamic tree has been implemented to calculate the best path between routers and clients, and also the optimal server to provide content based on continuously calculated statistics.

Pug to HTML
Language Processing | Python
A PUG to HTML converter that respects the hierarchy of indentations and returns the HTML file properly indented for aesthetic purposes.

Big Data Project and Article
Big Data | Python
A study of three datasets regarding depression symptons, chronic diseases and physical activity in Europe per age group, income quantiles and gender using Python, MongoDB and PowerBI. The final article written "Unveiling Societal Health Patterns: A Study of Physical Activity, Chronic Diseases, and Depression Symptoms in Europe" was accepted at DSAI 2024 Conference.