Leonardo Colaço

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Skills

Languages: Python, Javascript, Java, C#, HTML and CSS, SQL
Technologies: Git, .NET, React.js, React Native, Expo Go, MongoDB, Express js, Node.js, Linux, Unity
Key Areas: Software Development, Web Development, REST APIs, Database Management
Spoken Languages: English (Fluent), Portuguese (Native), German (A1)

Work Experience

Next Thing Consulting, Lda
July 2024 - Sept 2024
Software Engineer Intern
Maputo, Mozambique

- **Technologies Used**: *Javascript, React.js, React Native, RPA, UiPath, Node.js, Git*
- Conducted a thorough study to analyze and improve the workflow of a client logistics company, designed and implemented systems incorporating Robotic Process Automation (RPA) and a mobile application to improve workflow efficiency.
- Implemented **Robotic Process Automation (RPA)** using UiPath to automate document processing. Designed workflows within **UiPath Studio**, leveraging activities like **File Handling and Excel Automation** to extract data from inventory systems, process invoices, automatically log inventory and invoice data into the company's ERP system (Primavera v10).
- Developed a Warehouse Logistics Management App integrated with barcode scanning to register items into and out of the warehouse to the database. It worked with the RPA workflows to automatically update generate documents and update the inventory from the ERP. This system streamlined the registration of items in the database and greatly reduced the paper records in the company, **reduced manual data entry tasks by 20%** and **minimizing errors by 15%.**

- Developed functionality to assign suppliers, store pallet data with unique identifiers, and display all associated items for more effective inventory tracking.
- Designed and deployed a REST API for sending pallet data to the server that integrates with UiPath, triggering automatic invoice generation and enabling seamless data flow between systems.
- Also redesigned the company's webpage using React.js, incorporating modern UI/UX principles. The redesign **increased user interaction by 25%.**

Moozi - Ride-sharing App
March 2025
Freelance Web Developer
Maputo, Mozambique

- Designed and built a modern, mobile-first webpage for a car ride app startup using React.js and Tailwind CSS, focused on clear user flows and visual branding.
- The design aimed at creating reusable React components and scalable layouts to future-proof the site for new features and rapid updates.
- My work focuses on solving business problems like user engagement and brand credibility by crafting an intuitive, responsive UI that encourages ride bookings and app downloads.

Projects

Folder Video & Audio Duration Tool | *Python*
2025

- Developed a **desktop application** using **Python** and **PySide6** to analyze the **total duration of audio and video files** in a selected folder. Features include **drag-and-drop folder selection**, **progress tracking** with a **dynamic progress bar**, and detailed **file size** and **duration display**. Implemented **multithreading** for efficient processing and integrated support for various **media formats**.

Image Processor | *Python, OpenCV*
2024

- Spearheaded the design and development of an **image processing application** in **Python** as part of a **graduation project**. The application integrates **clever algorithms** with a **user-friendly interface** to deliver powerful image manipulation capabilities.
- Key features include **multi-format image support**, **content-aware image resizing**, **color adjustments**, and a **cartoon filter**.
- Techniques used include **seam carving for content-aware resizing** and **structure-adaptive filtering for the cartoon effect**.

Online Student Document System | *Javascript, React.js, Express.js, MySQL*   2024
- Designed and implemented a secure **Student Document Management System** with distinct roles for admin, staff, and student users.
- Integrated **DES (Data Encryption Standard)** for encrypting sensitive user data stored in the database and **RSA (Rivest-Shamir-Adleman)** for generating digital signatures to authenticate document requests.
- **Admin Features:** Enabled admin users to add and manage student and staff profiles, ensuring all data is securely encrypted before storage.
- **Staff Features:** Allowed staff users to edit student grades, update their own profiles, and process document requests such as transcripts and certificates. Implemented functionality for staff to generate new DES and RSA keys, with seamless re-encryption of the database using the updated keys.
- **Student Features:** Empowered students to view their personal information and request official documents (e.g., transcripts, certificates). Ensured requested documents are authenticated with RSA digital signatures, which students can verify for integrity and authenticity.
- Automated periodic key updates using cron jobs, ensuring robust data security and compliance with encryption standards.

Leo's NyanChat (Fullstack Web App) | *Javascript, MongoDB, Express.js, React.js, Node.js, Tailwind CSS, Socket.io*   2024
- Developed a full-stack real-time chat application using the MERN stack (MongoDB, Express.js, React, Node.js) and Socket.IO for real-time communication.
- **Authentication & Authorization:** Implemented secure user authentication with JWT, password hashing using bcrypt, and protected routes.
- **Real-Time Messaging:** Enabled instant messaging with Socket.IO, including online user status updates and notifications.
- **Responsive UI:** Designed a modern, responsive user interface using TailwindCSS and DaisyUI, ensuring a seamless user experience across devices.
- **State Management:** Utilized Zustand for efficient global state management in React.
- **Error Handling:** Implemented robust error handling on both client and server sides for a reliable user experience.
- Deployed the application using **Render**.

Portfolio Website | *Javascript, HTML and CSS, GitHub*   2023
- Designed and deployed my **personal portfolio website** to display my projects, resumé, and skills through GitHub Pages.

Education

Eastern Mediterranean University   March 2021 - Jan 2025
BS in Computer Engineering   *Famagusta, Cyprus*
- **Coursework:** Data Science, Security of Computer System and Networks, Software Engineering, Client/Server Programming, Database Management Systems