BreoLAN

Golfinho

“Detect before it breaks, do whatever it takes”

What is Golfinho?

- Golfinho is a decentralized network monitoring application that leverages AI to analyze network performance and securely store data,

- Our goal with that is detect anomalies such as high latency, packet loss, and unusual traffic patterns using AI algorithms.

Meet the Team

Gabribeta

Mobile Developer

Izzydiaz_

Mobile Developer

Roqeebah

Backend Developer

Quaid-khalid

Data scientist and AI Developer

Khuram_hanif243

AI Technician

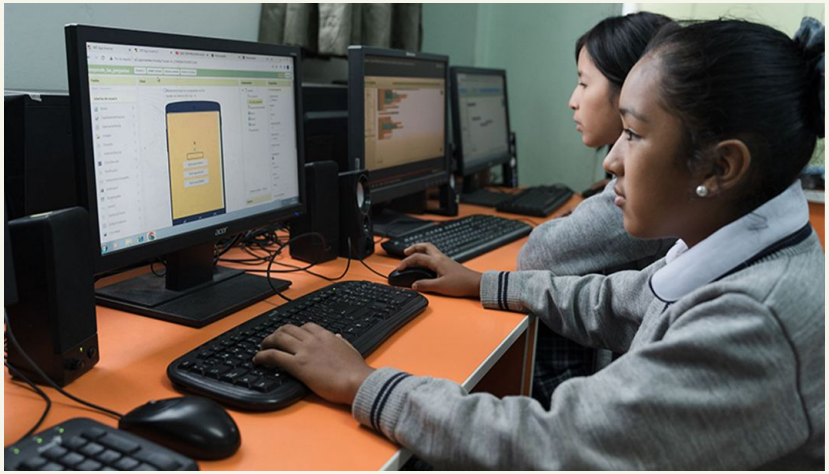
IqraAkhtar

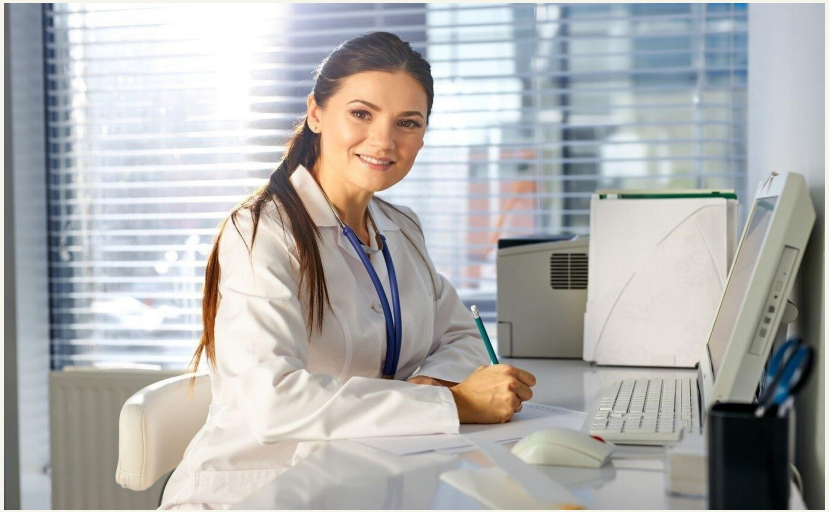
Software Engineer

Context

Problem

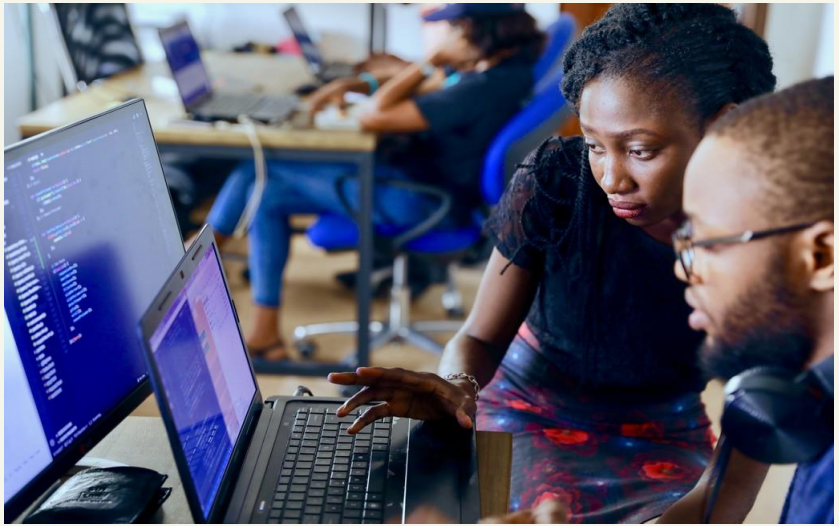
Poor connectivity in schools and health centers in underserved areas negatively impacts education and public health. These institutions lack accessible tools to monitor network performance and make informed decisions about improvements.





Why is it important?

Without reliable Internet access, students and healthcare professionals in vulnerable regions cannot take advantage of digital education and telemedicine tools, contributing to the global digital divide. Optimizing public networks is essential to overcome this barrier.



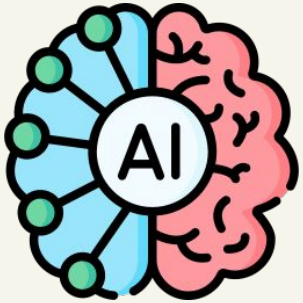
Why the Name of Golfinho

Connection with Galician culture: In Galicia, dolphins are a symbol of marine life, agility and adaptability. Like these animals in the sea, Golfinho reflects the fluidity and efficiency of our app, designed to help users navigate and optimize their online experience in an agile way.

Symbolism of agility: Dolphins are known for their speed and ability to adapt. Golfinho symbolizes what we seek to offer: a fast, efficient and adaptable tool that allows users to understand and improve the performance of their networks.

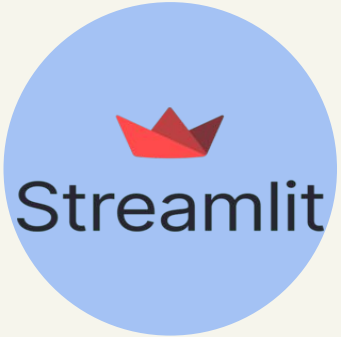
Technologies and Tools

Key technologies



Artificial Intelligence

Flutter



Streamlit

Technologies Used

These technologies are scalable, accessible, and have the potential to be implemented in communities with limited infrastructure. Flutter enables rapid deployment for multiple mobile platforms, while AI tools optimize real-time network prediction and diagnosis

Main Features

General Description

The app collects data on network performance (latency, download speed, packet loss) in real time and sends it to a centralized AI-based platform. AI analyzes this data and suggests solutions to improve connectivity in problem areas.

User Interaction

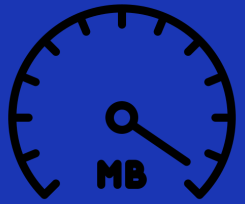
Users interact with the app through a simple interface that allows them to view their network metrics and receive recommendations based on AI analysis.

Benefits for the User

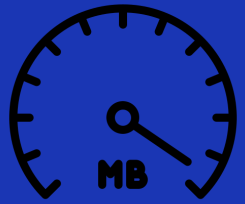
Users gain a clear understanding of their networks' performance and can implement recommendations to improve connectivity, which can result in a better educational and health experience.

Network Metrics

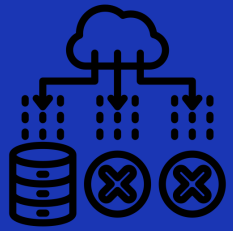
LATENCY



DOWNLOAD SPEED



UPLOAD SPEED

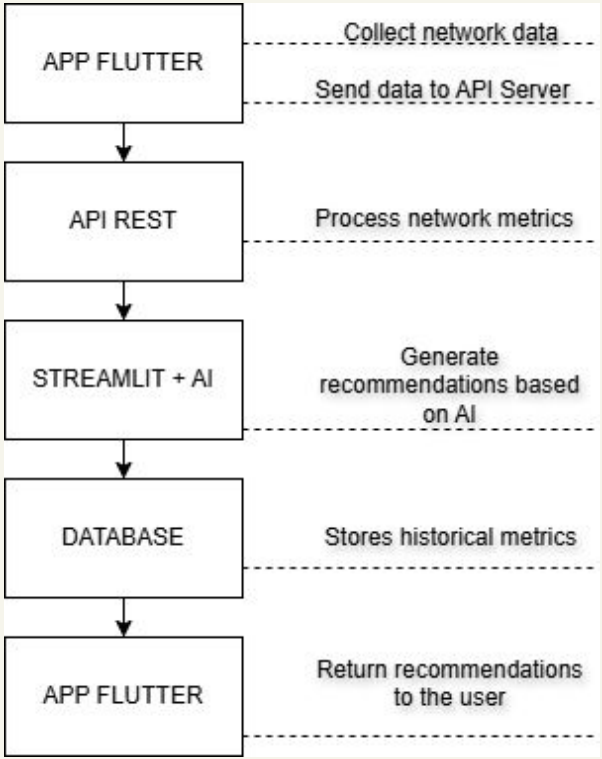


PACKET LOSS

In the future will be measured more metrics

Application Architecture

- **Client App (Flutter):** The mobile app is responsible for collecting network metrics and sending them to the server for processing.
- **REST API:** Facilitates communication between the Flutter app and the backend. It acts as a bridge to send data between the two.
- **Streamlit + AI:** The server in Streamlit receives the data and uses AI to analyze and generate recommendations on network quality.
- **Database:** The database stores metrics and historical data, allowing for deeper analysis or personalization of the user experience.
- **App Flutter:** Once the recommendations are processed, the app receives them and shows them to the user in a friendly interface.



Flow work

Project Timeline

PHASE 1

Flutter

Prototype development in Flutter and obtain metrics.

PHASE 2

AI

AI Integration for predict and analyse data.

PHASE 3

Streamlit

Smart contracts implementation.

PHASE 4

APIS

App deployment and final testing.

This app is for...

Target Customers

To ensure that Golfinho is a success, we need to know before some of our possible target customers:

Governments and Public Sector Entities

Government entities, including ministries of education, health, and digital development, work to ensure stable connectivity in public institutions like schools and health centers in underserved areas by improving infrastructure.

ONGS

Organizations like UNESCO and UNICEF that focus on providing reliable connectivity to remote communities, ensuring access to essential education and healthcare services, and promoting digital inclusion.

ISPs and Tel Companies

Companies providing internet services to institutions and startups focused on community networks, aiming to optimize infrastructure, reduce costs, and improve customer service quality.

Schools and Health Centers in Rural Areas

Organizations in remote or underdeveloped regions struggling with stable connectivity, needing affordable and efficient solutions to ensure uninterrupted internet services and detect failures early.

Technology and Tel Consultants

Firms that advise governments and organizations on planning and maintaining public connectivity infrastructure, helping optimize networks and integrate new technologies and innovative solutions.

Impact and Future

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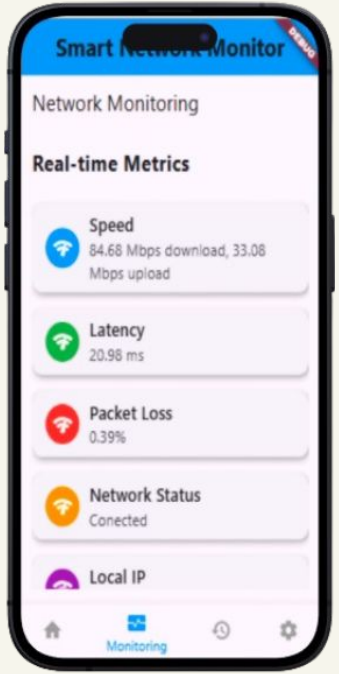

Conclusion

The project seeks to optimize the life cycle of public connectivity networks in underserved regions through AI, improving access to educational and health services.

THE END

"With every data point, we're closer to a flawless network."