

**Reskill**💡

in collaboration with  **Meta**

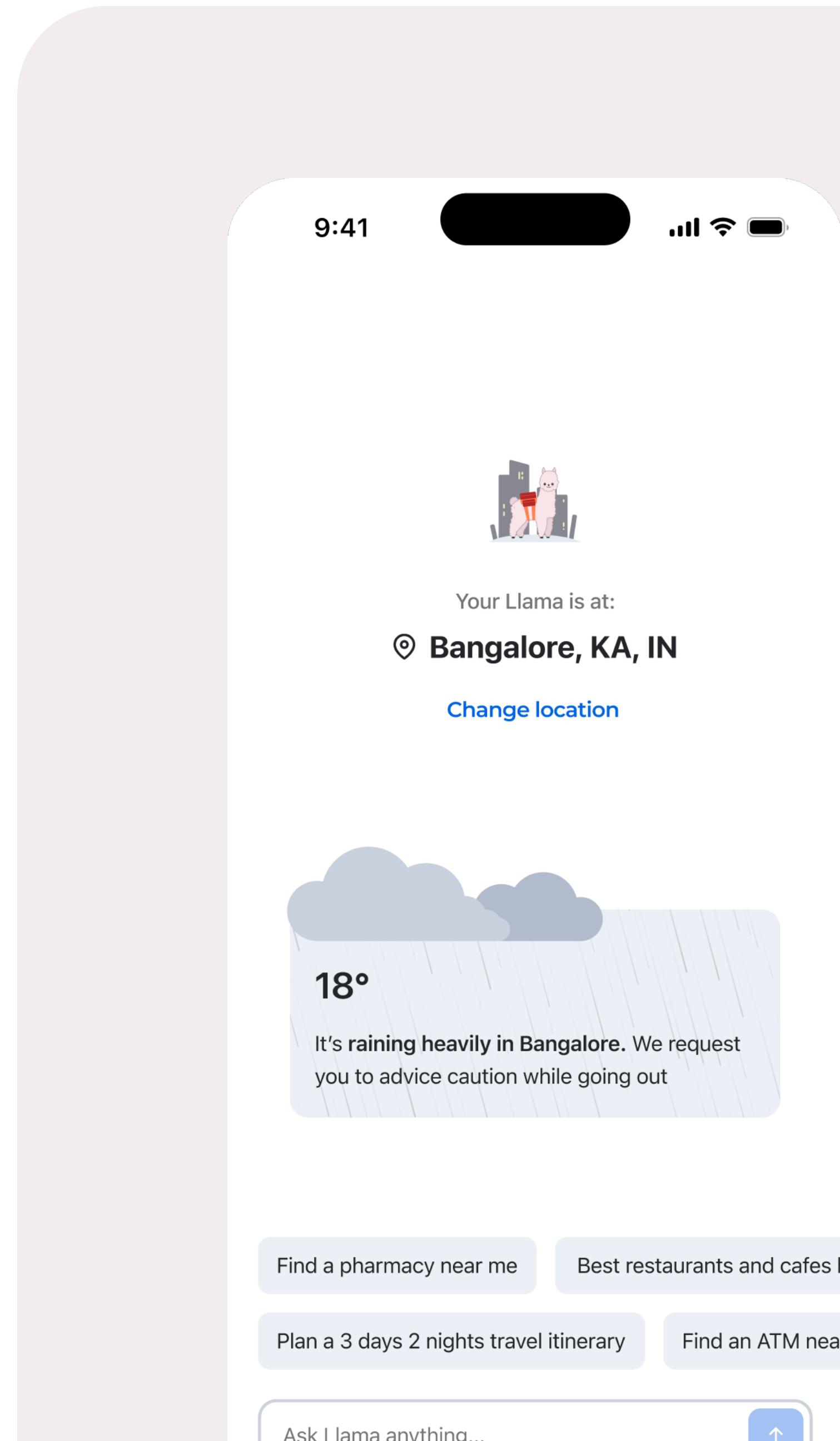
AI ON EDGE

wander  llama

your offline travel AI

👤 Travelling Llama

AMARTYA R. SAIKIA | DEBRAJ BORA | BEDANTA BATCHAS

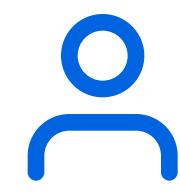


# The problem

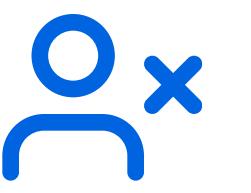
Travellers, especially in remote and resource-limited areas, face difficulties accessing real-time, personalised travel information. Internet connectivity is often unreliable, making it hard to get route suggestions, cultural information, or weather updates.



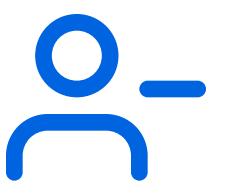
# Key Beneficiaries



**Adventure  
seekers /  
travellers**



People stuck  
in disaster  
zones



People struggling  
to afford daily  
internet



# Primary Persona



## Sam

32 | SOFTWARE DEVELOPER  
BANGALORE, KA, IN

**Personality:** Adventurous, resourceful, and self-reliant.

**Tech Savviness:** She relies on apps but prefers simple, intuitive interfaces

**Pain point:** Struggles to find reliable information when traveling in remote areas without internet access.

“ I'm always chasing the next wild adventure, but as a wildlife photographer, I often find myself in places where internet connectivity is unreliable. Whether trekking through the Amazon, camping in Namibia's deserts, or exploring the wilderness of Northeast India, my biggest frustration is navigating remote areas with little access to online maps or information. ”

I frequently need survival tips, trail maps, or details about local flora and fauna, but my phone loses signal miles from the nearest town. While some apps offer offline maps, they often lack the detail I need, adding uncertainty to my travels. ”



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# How might we's

- How might we make the app easy to understand and simple to operate? UI
- How might we train LLMs over map to run on edge without connectivity? Backend

# Proposed Solution

**Wanderllama** is an offline, edge-powered travel app that delivers personalized recommendations and real-time information within a 10 km radius, even without internet access. Powered by Meta's Llama 3.2 - 1B model, it provides localized routes, weather forecasts, cultural insights, and safety alerts, all processed on-device for data privacy. Ideal for hikers, remote areas, or disaster-struck regions, the app uses a Retrieval-Augmented Generation (RAG) pipeline and custom GeoJSON datasets to generate insights specific to locations like Golaghat, Assam, enhancing information accuracy beyond Llama 3.2's standard capabilities.



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# Tech Stack

## Key Technologies:

Python, Javascript, Streamlit, PyTorch, OpenWeatherMap API (weather),  
Geopandas, OpenStreetMap, Scraping via Selenium, BeautifulSoup4

## RAG Pipeline:

Langchain, ChromaDb, ChatOllama (model=llama3.2:1b),  
OllamaEmbeddings (nomic-embed-text), Geojson

# Unique Selling Point (USP)



Offline access to maps and other relevant informations based on custom data sets created from local's perspectives.

# Wanderllama

Prototype web interface for real time chatting using a Local Llama model.

[Watch Video ↗](#)

The screenshot shows a dark-themed prototype of a travel application. At the top, it says "Travelling Llama" with a llama icon. Below that, there are dropdown menus for "Select State" (Arunachal Pradesh) and "Select District" (Tawang). It displays coordinates for Tawang: Latitude 27.5521, Longitude 91.8628. There are input fields for "Latitude" (27.552100) and "Longitude" (91.862800), each with minus and plus buttons for adjustment. A "Update Location" button is below these fields. A map of the Arunachal Pradesh region is shown, with towns like Namling, Nyemo, Lhasa, and Gyaca labeled. At the bottom is a message input field with placeholder text "Type your message here..." and a send button with a right-pointing arrow.

The screenshot shows a light-themed mobile application prototype. At the top, it says "Your Llama is at: ⛵ Bangalore, KA, IN" with a "Change location" link. Below that is a weather card showing "18°" with rain clouds and a message: "It's raining heavily in Bangalore. We request you to advice caution while going out". At the bottom, there are several buttons: "Find a pharmacy near me", "Best restaurants and cafes nearby", "Plan a 3 days 2 nights travel itinerary", "Find an ATM near me", "Ask Llama anything...", and a blue "Watch Prototype" button with a right-pointing arrow.

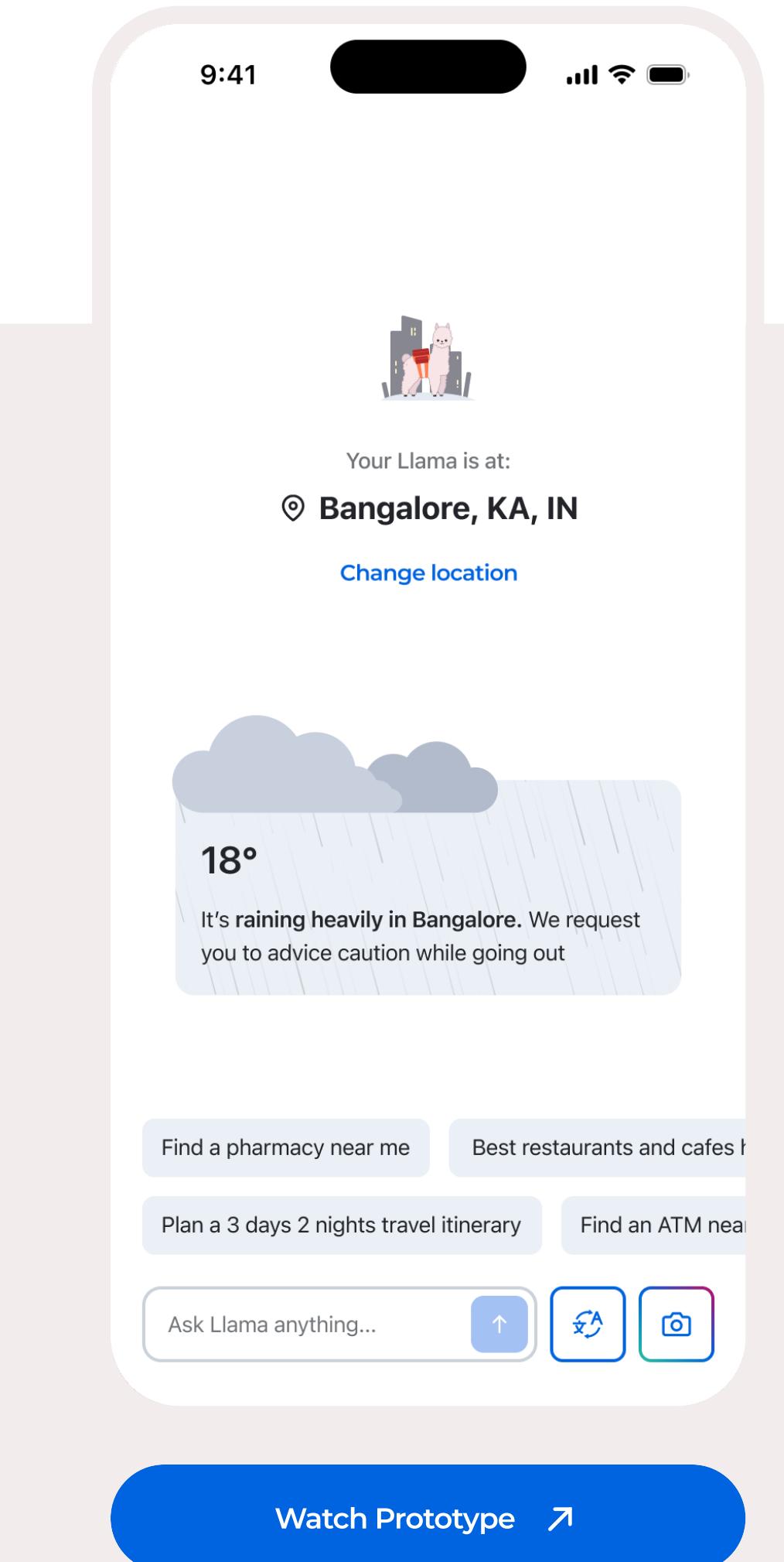


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# Future Scope

- More custom data set.
- Distillation to reduce model size.
- Multi-modal data with 8 bit Llama model after distillation.



# Thank you!

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