STREETREADERAI DEMO

Towards *Making Street View Accessible* Using Context-Aware Multimodal AI

Search for a location to go to...

Nearby   Virtual Tours

720 Steiner St, San Francisco, CA 94117, USA

Summary | Mobility | Obstacles | Safety

The scene is a sunny day in Alamo Square, with a paved path curving to your left surrounded by grass. In the distance, about 70 meters ahead, is the famous row of Victorian houses known as the Painted Ladies, with a street and parked cars in front of them.

Generated in 1.42 secs   Regenerate

How do I walk to the houses from here?

Proceed down the hill along the path toward the houses, and be aware that you will eventually reach a street with traffic. Use caution when crossing.

Is there a crosswalk at the intersection?

Yes, there appears to be a crosswalk at the intersection ahead. Use caution and listen to traffic before crossing.

Are there curb ramps?

Yes, I believe there are curb ramps present at the intersection to help you navigate from the sidewalk to the street.

Are there pedestrian signals or a stop sign?

There do not appear to be pedestrian signals, but there is a stop sign visible.

Ask a question about this location...

End Conversation

Keyboard shortcuts | © 2025 Google | Terms | Report a problem

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GOAL: SUPPORT FOUR CORE USER TASKS

POI Investigations
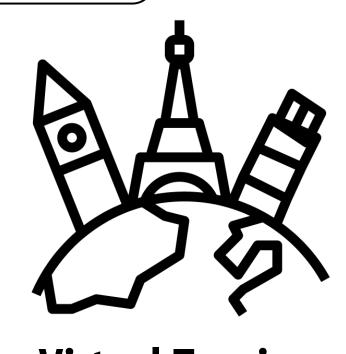*What does a place look like?*

Route Planning
What does my route look like?
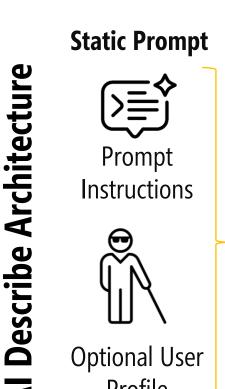
Open-Ended Exploring
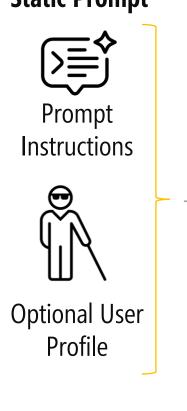*I just want to explore...*

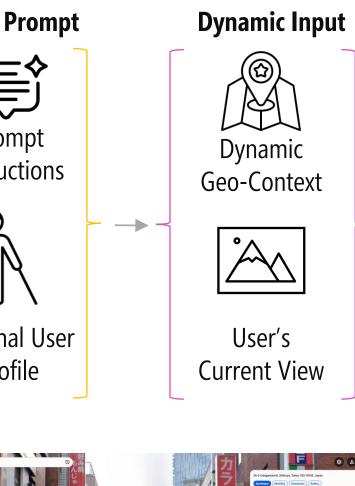**Virtual Tourism**
I've always wanted to visit...

AI DESCRIBE
A context-aware scene description tool

AI Describe Architecture

Static Prompt
- Prompt Instructions
- Optional User Profile

Dynamic Input
- Dynamic Geo-Context
- JSON
- User's Current View
- JSON

MLLM — Gemini

Output
- Mobility + Access Features
- Context-aware Description

AI Describe Examples

AI CHAT
A context-aware AI chat tool

AI Chat Architecture

AI CHAT

Prompt
"You are a visual assistant that helps blind and low vision users by answering questions about their physical environment based on Street View images they provide and metadata about their location...

Answer each question succinctly, limiting your responses to 2-3 sentences. Ensure your answers are accurate.

It is also critical that you attend to mobility and safety related issues that the blind user may encounter."

User Profile
"I use a cane and guide dog for navigation. I try to avoid busy intersections, unmarked crosswalks, and stairs."

Command Fn Defs
- name: "moveForward", description: "Move the user forward along the current heading to the next Google Street View panorama,"...
- name: "moveToNextIntersection", description: "Move the user to the next intersection,"...
- name: "turnLeft90", description: "Turn the user's heading to the left"...

STREETVIEW CONTROL SYSTEM — LLM Command Function Call

MLLM LIVE — Gemini

STREETVIEWAI GSV NAVIGATION NETWORK

AI Chat Examples

Google Research

Technology AI Society and Culture

AI for Social Good

DeepMind

People + AI Research

JON E. FROEHLICH — Google Research
ALEX FIANNACA — Google DeepMind
NIMER JABER — Google
VICTOR TSARAN — Google
SHAUN KANE — Google Research