SenseVision Pro

Assistive Vision for the Visually Challenged and Needy.

`Pre-Alpha v0.1.6.9`

CHRIST
COLLEGE OF ENGINEERING

SenseVision Pro is an mobile app designed to help the visually impaired and needy individuals understand their surroundings through real-time image descriptions of what their phone sees.

Features Implemented:

1. Automatic Image Capture every 5-10 seconds to keep users updated about their environment.
2. ML-Powered Image Captioning using local server
3. Text-to-Speech Feedback: Captions are read aloud to users, providing them with real-time information about the world around them.
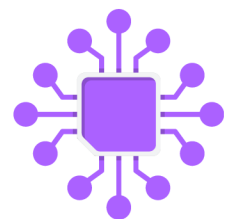4. Continuous Updates: The app gives feedback on backend process happening

How It Works:

- Step 1: Capture – The app automatically takes photos every few seconds.
- Step 2: Send to Server – The images are sent to a local server for captioning via AI.
- Step 3: Process & Caption – The server generates an image description (caption).
- Step 4: Speak Out Loud – The app reads the description aloud, keeping the user informed.

Processing Time: [GIT-Base]

<1sec

GPU: RTX 3050 6GB

Technology Stack:

- Android: Kotlin-based app for Android devices.
- Flask Server: Local server for processing images and generating captions (Python).
- ML Model: Image captioning powered by GIT-Base.
- Text-to-Speech: Android's TTS API.

TEAM 14

- Vishnu Nandan
- Nithin N
- Swathy KS
- Nimmy Shaji

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