



Smart Voice Assistant

TRANSITIONING TO VERTEX AI AGENT ENGINE

- Currently utilizing **DialogFlow** for voice interactions.
- Moving to **Gemini 2.5 Flash & Pro** for next-gen conversational reasoning.
- Future: On-device models for offline voice experience on iOS/Android.



Situational Awareness

ADVANCED COMPUTER VISION

- Object finding, door detection, and room layout understanding.
- Powered by **Gemma** and other vision models.
- Solves the "last-mile" navigation problem.



Voice Generation

NATURAL SPEECH OUTPUT

- High-quality text-to-speech via **Google TTS**.
- Seamless online & offline operation.



Mobility Analytics

UNDER DEVELOPMENT

- Actively developing metrics for cane angle, swipes, and obstacle interactions.
- Exploring **Google Cloud services** for advanced data processing.



Backend & Operations

[Cloud Run](#)[Cloud SQL](#)[Firestore](#)[Artifact Registry](#)[Logging](#)

Recently migrated from AWS to Google Cloud, leveraging GCP credits for scale and innovation.