Visionary

Pablo Rodriguez, Everardo Robles, Snehal Kumar, Vincent To, Cade Andersen
Instructor: Dr. Nick Toothman

What is Visionary?

Visionary is a mobile app that turns your smartphone camera into a powerful recognition tool. Snap a picture of any object or text and instantly get a description or translation of it. Users can save, share, and organize their scans to build a personalized library of everything they've discovered!

Features

- Object recognition and description
- Text detection and translation
- Save scans to collections
- Share scanned results
- Full scan history access
- Multi-select batch delete
- Haptic feedback on key actions
- Pinch-to-zoom camera
- Light & dark mode support
- Text-to-speech functionality

Major Algorithms

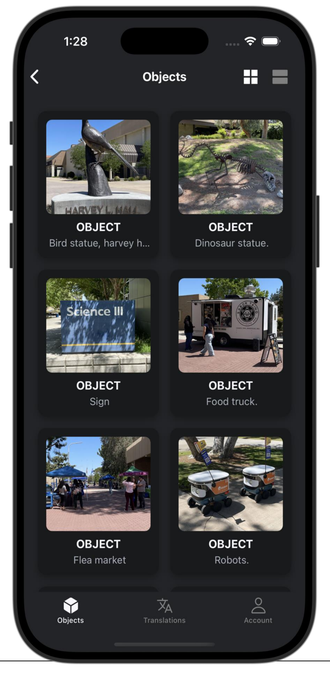
- Optical Character Recognition (OCR) via pytesseract
- JWT token authentication for security
- Ollama integration for object detection and classification

Visionary in Action

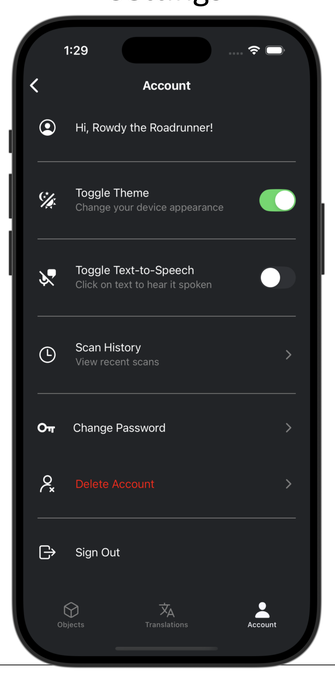
Camera View

Object Info

Collections



Settings



Challenges

- Cross-platform UI consistency (iOS & Android)
- Photo cropping & maintaining visual fidelity
- State management across nested navigators
- Database management through ORM
- Text detection model compatibility
- Balancing detection model vs available system power

Future Plans

- Onboarding / Tutorial mode
- AI-generated descriptions
- Reverse image search
- Purchasing options
- 'Explore' tab

Technologies

python™ · git · React Native · Expo · PostgreSQL

visionaries@cs.csub.edu