



ROS-ANNOTATOR

BY GROUP NA-KOALA

A WEB APPLICATION FOR ROSBAG DATA ANALYSIS IN HUMAN-ROBOT INTERACTION

About Us



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INTRODUCTION TO ROS-ANNOTATOR



Objective n° 1

Analysis **ROSBag*** data,
including unpacking data,
converting image to video,
combining audio to video,
speech-to-text tasks

Objective n° 2

Visualize data on a web page

Objective n° 3

Annotate function, including
type-in annotation, select
predefined annotation, save
and recover progress,
statistical summarization

***ROSBag** data is a complex binary format for recording and storing data from robots. It is important for Human-Robot Interaction (HRI) because it captures detailed information about interactions that researchers can analyze to improve robot performance and human-robot collaboration.

PROJECT VALUE



Enhanced
Accessibility to
ROSBag Data

VALUE N°1



Improved
Efficiency in
Data Annotation

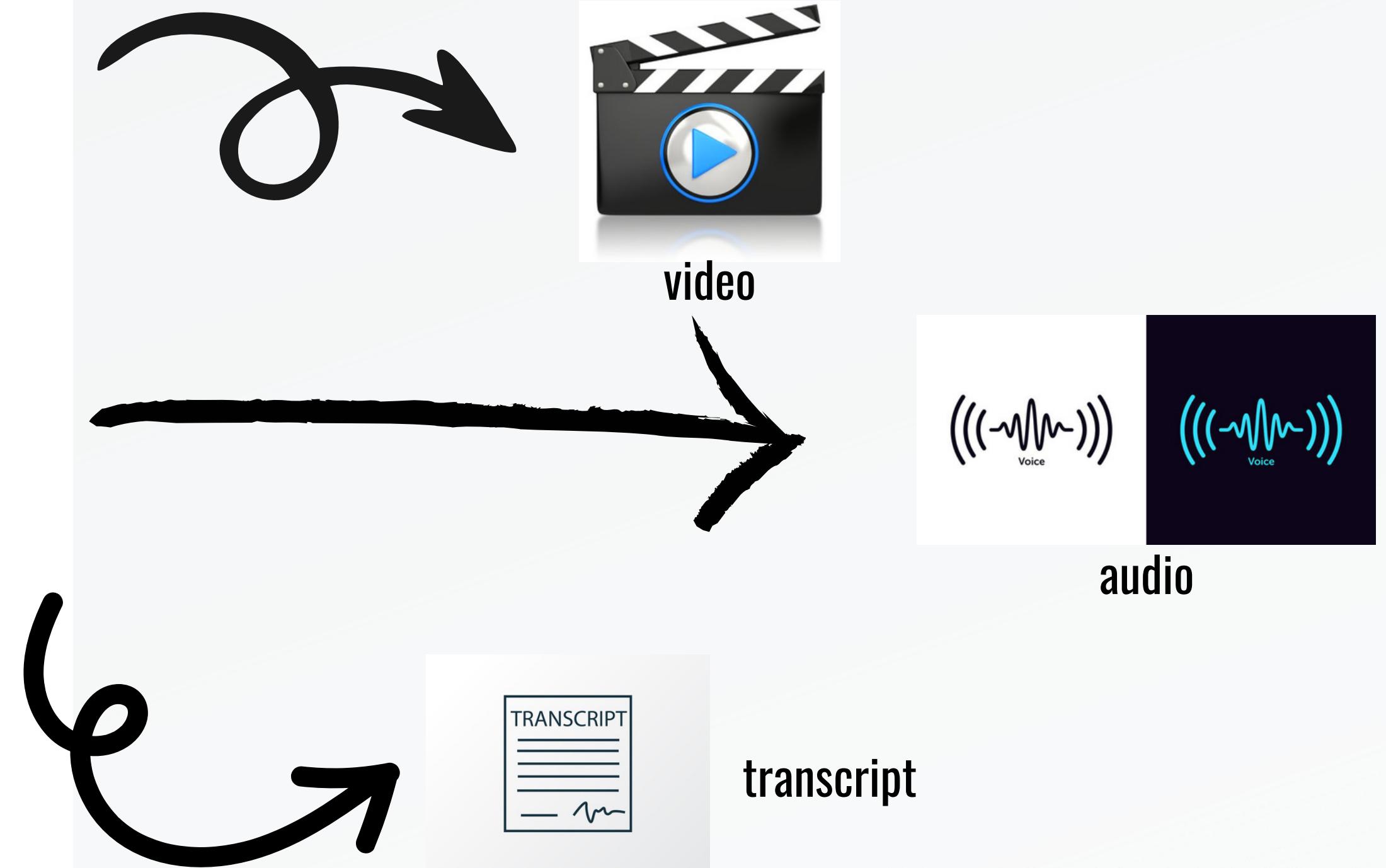
VALUE N°2



Provide Data
for Future
Research

VALUE N°3

DATA ANALYSIS





THE UNIVERSITY OF
MELBOURNE

ANNOTATION

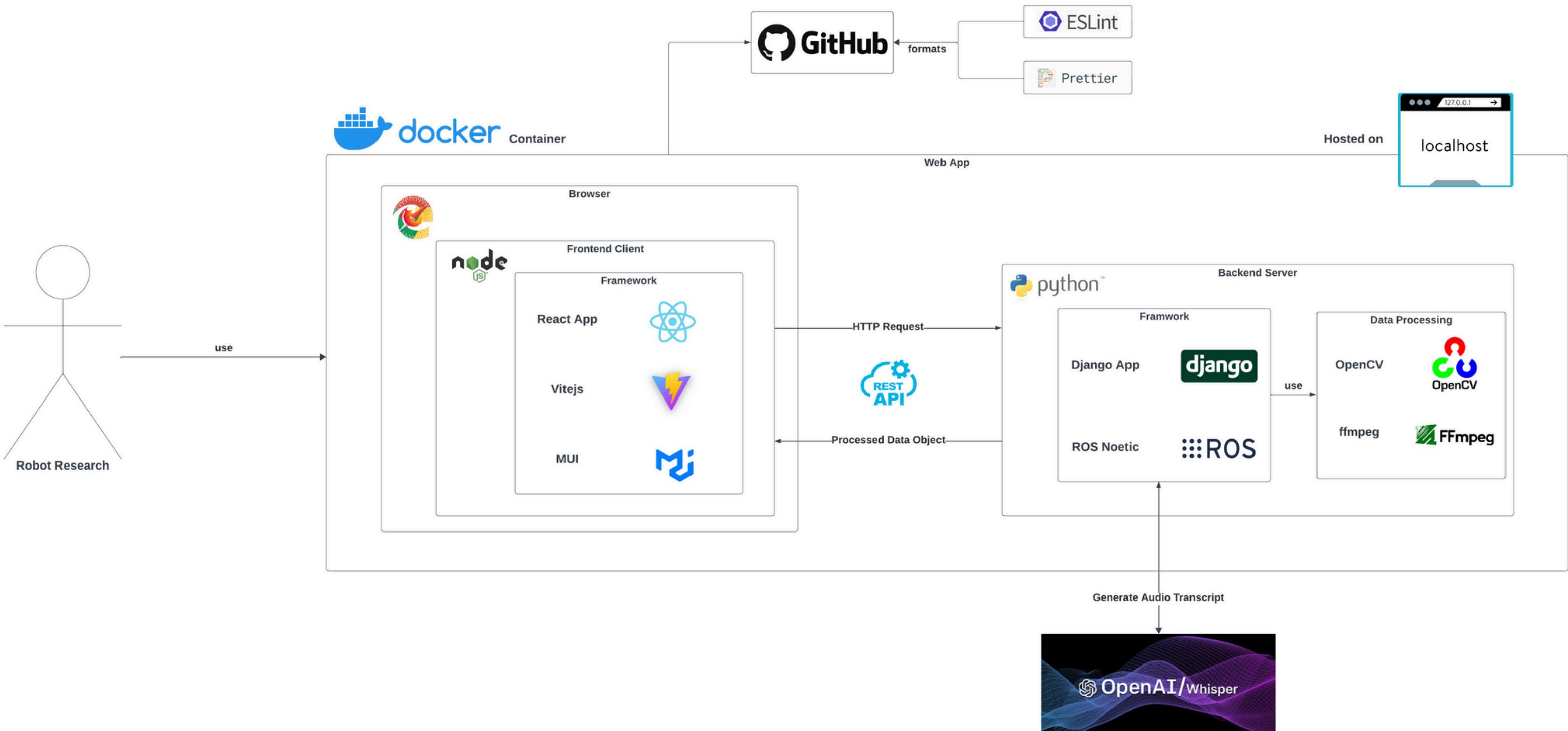
At vero eos et **accusamus** et iusto odio dignissimos **ducimus** qui blanditiis praesentium voluptatum deleniti atque corrupti quos dolores et quas molestias excepturi sint occaecati **cupiditate** non provident, **similique** sunt in culpa qui officia deserunt mollitia animi, id est laborum et dolorum fuga. Et harum quidem rerum facilis est et **expedita distinctio**. Nam libero tempore, cum soluta nobis est eligendi optio cumque nihil impedit quo minus id quod maxime placeat facere **possimus**, omnis **voluptas assumenda** est, omnis dolor **repellendus**.

Temporibus autem quibusdam et aut officiis debitis aut rerum necessitatibus saepe eveniet ut et voluptates **repudiandae** sint et **molestiae** non recusandae. Itaque earum rerum hic tenetur a sapiente delectus, ut aut reiciendis voluptatibus maiores alias **consequatur** aut **preferendis** doloribus asperiores repellat.

Et harum quidem rerum facilis est et expedita **distinctio**. Nam libero tempore, cum soluta nobis est **eligendi** optio cumque nihil impedit quo minus.

The screenshot shows a digital annotation interface with a sidebar on the right containing a list of entities and their properties. The sidebar includes sections for 'Name' (Velociraptor), 'Date' (2008, 75 to 71 million years ago), 'Country' (Mongolia, China), and 'Other species' (Deinonychus, Achillobator, V. mongoliensis, V. osmolskae, dromaeosaurids, dromaeosaurid, dromaeosaurids, turkey, reptiles). The main area displays three Latin texts with various words highlighted in colored boxes (yellow, orange, pink, blue) to indicate specific annotations or entities being analyzed.

ARCHITECTURE





PRODUCT DEMO

<https://github.com/COMP90082-2024-SM1/ros-annotator/blob/main/README.md#usage-guide>

CONCLUSION

Scope

- ROS Data Handling
- Dashboard Visualisation
- Synchronised Interaction
- Annotation Features
- Custom Annotation
- Automatic Annotation
- Auto-Transcription
- Multiple RoSBags Loading

Out of Scope

- 3D Point Cloud
- Complex Operations on Frontend Data Display
- Persistent Storage for Processing Data or Annotations
- Batch & Auto Annotations
- Manual Correction of Auto-Generated Transcripts



Q&A section