

**MICHIGAN STATE**  
**UNIVERSITY**  
**Beta Presentation**

**ERP Air Force: Drone Elephant**  
**Recognition and Tracking**  
**The Capstone Experience**

Team Evolutio

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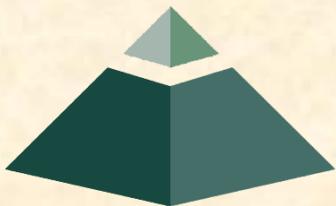
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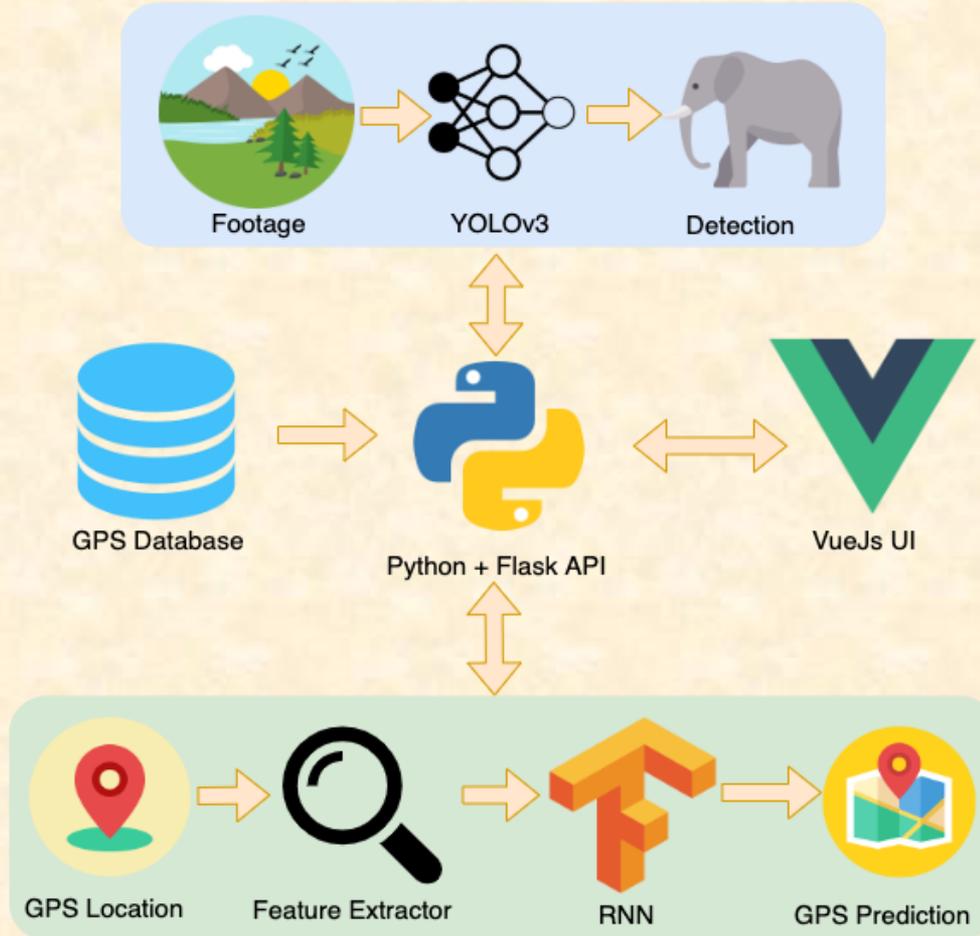
*From Students...*  
*...to Professionals*

# Project Overview

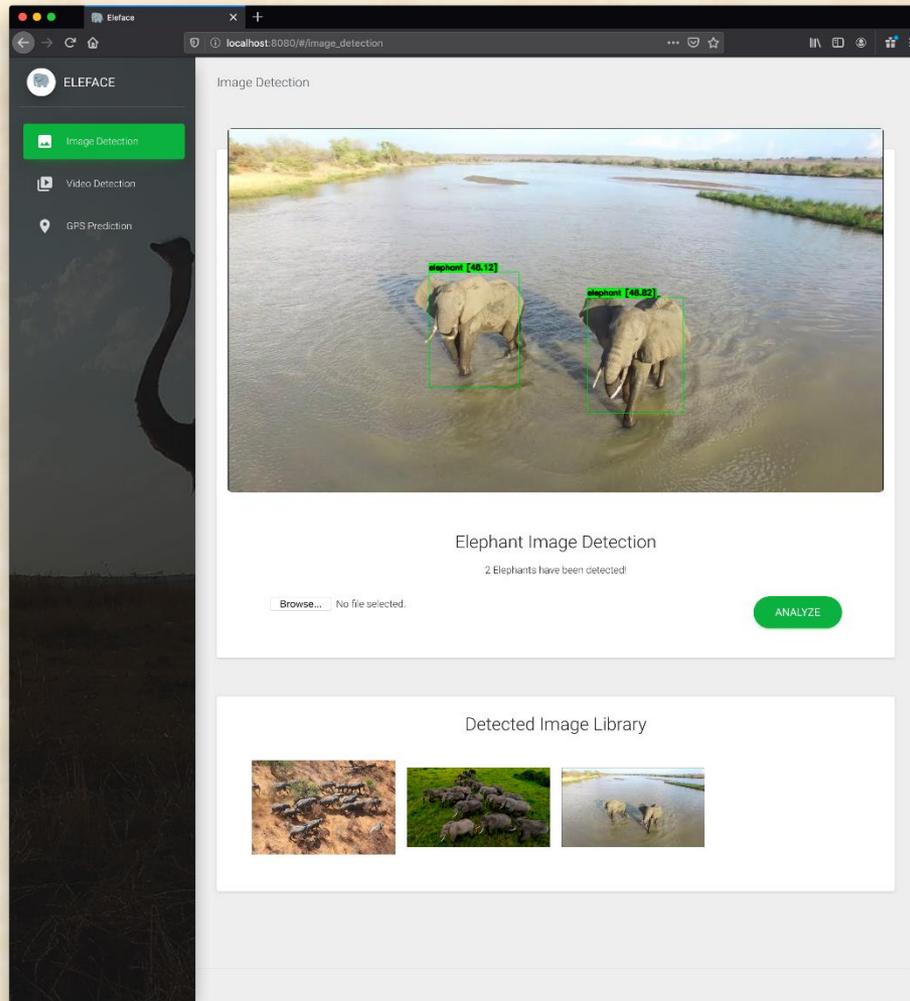
- ERP is founded to preserve and protect South Africa's Elephants
  - Drones
  - GPS Collars
- The goal of our project is to help ERP analyzing their daily data
  - Auto-identify Elephants form drone footage
  - Inform rangers where to search for Elephants



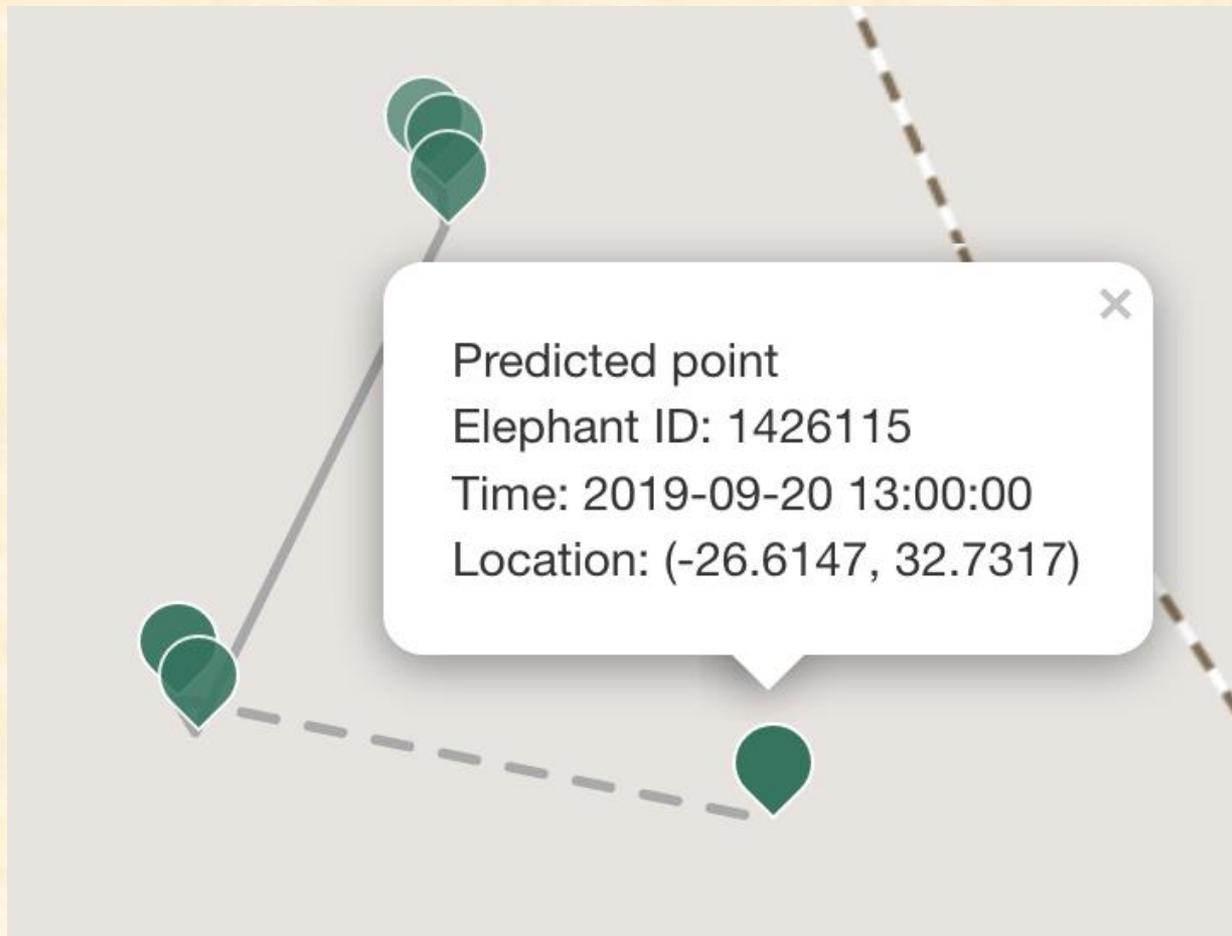
# System Architecture



# Image Detection



# GPS Prediction Map

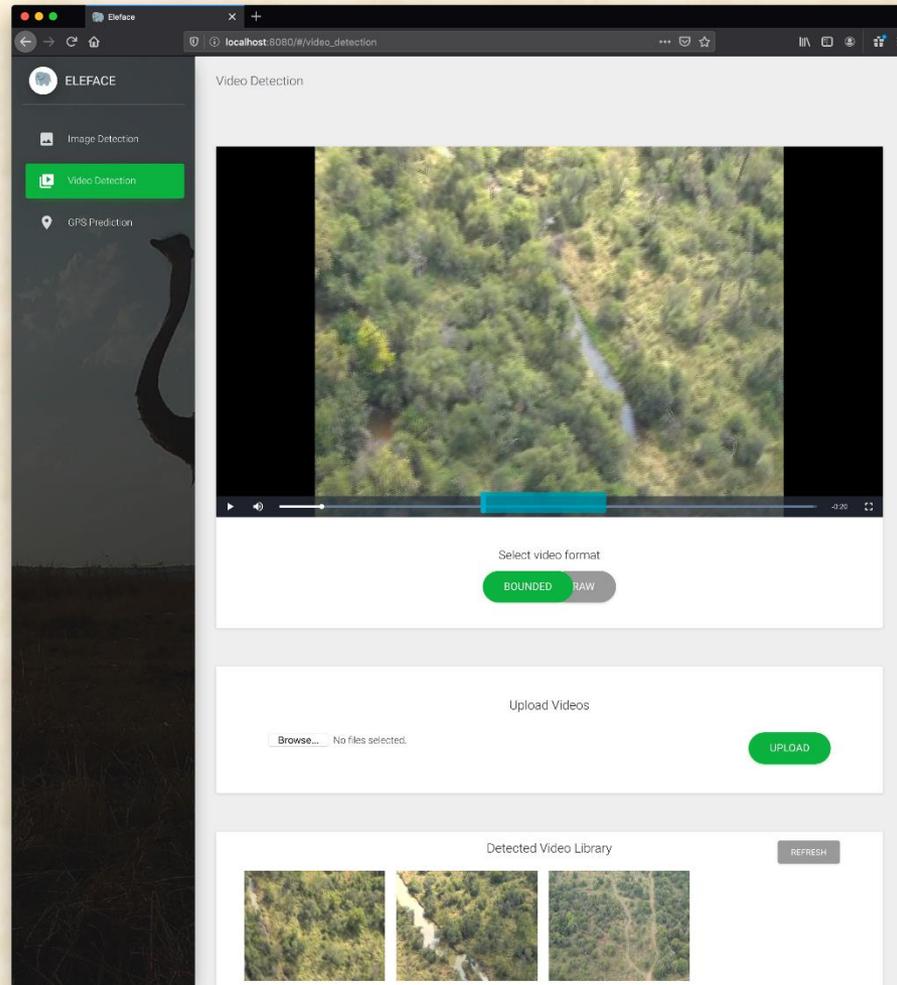


# GPS Prediction Page (Satellite View)

The screenshot displays the ELEFACE web application interface. On the left, a dark sidebar contains navigation options: 'Image Detection', 'Video Detection', and 'GPS Prediction' (highlighted in green). The main content area shows a satellite map with several red location markers and a white line connecting them, representing an elephant's path. A legend in the bottom right of the map area lists elephant IDs: 2973, 1221190, 1221195, 1426107, 1426112, and 1426115. Below the map, a 'Map Info' section explains that the color of markers indicates the elephant's ID and that more transparent markers represent past locations. A green bar below the map contains the text 'All Elephants' and 'Most recent tracking data for each elephant.' To the right of this bar is a button labeled 'PLOT SELECTED ELEPHANTS'. Below this bar is a table with the following data:

Name	ID	Location	Time
	1221190	(-21.4430, 33.8627)	2019-04-18 13:01:00 hrs
Numwala	1221195	(-21.3962, 33.7921)	2019-04-18 13:00:00 hrs
young bull	1283237	(-25.3080, 31.9811)	2019-09-20 09:00:00 hrs
Tiny Tim	1283240	(-25.2810, 28.3304)	2019-09-20 09:00:00 hrs

# Video Detection Page



# What's left to do?

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- Documentation
- Finish refining models
- Bug test
- Ship to client



# Questions?

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