

MICHIGAN STATE
UNIVERSITY

Alpha Presentation

[ERP Air Force: Drone Elephant Recognition and Tracking]

The Capstone Experience

Team Evolution

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

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Fall 2019

Project Overview

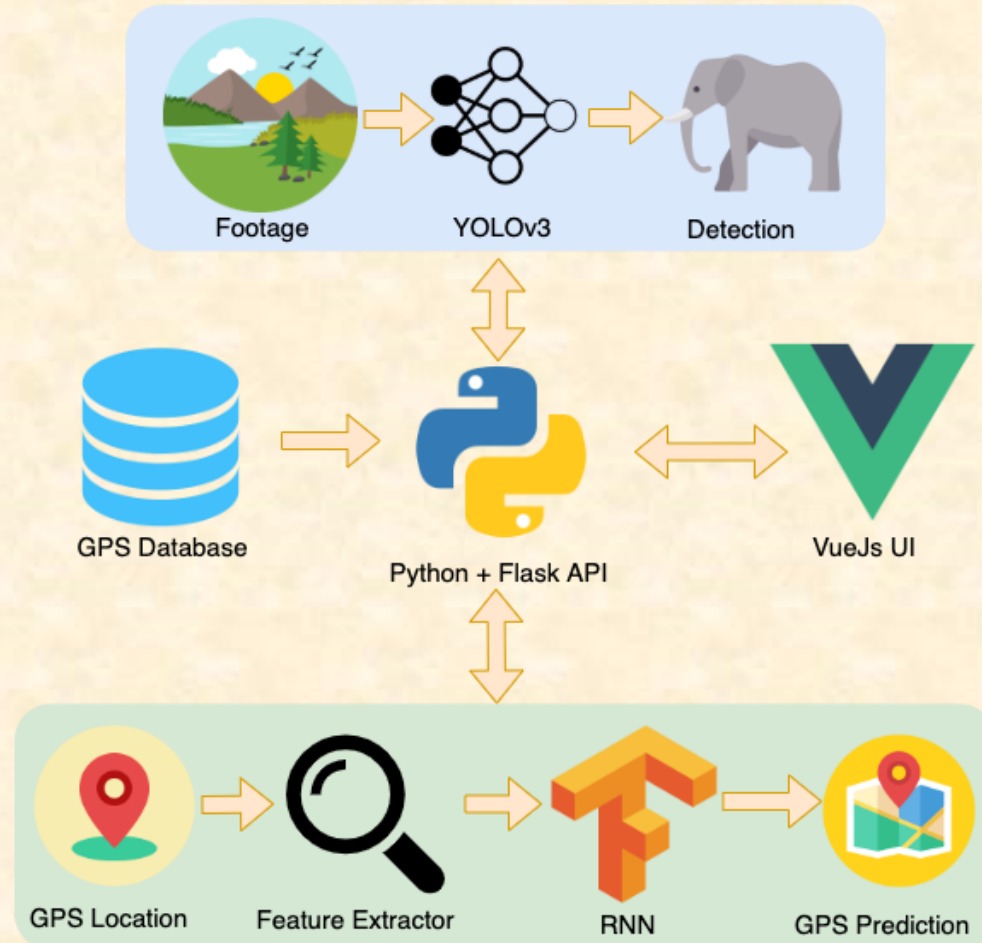
- ERP is founded to preserve and protect South Africa's Elephants
 - Drones
 - GPS Collars
- The goal of our project is to help ERP analyzing their daily data
 - Auto-identify Elephants from drone footage
 - Inform rangers where to search for Elephants



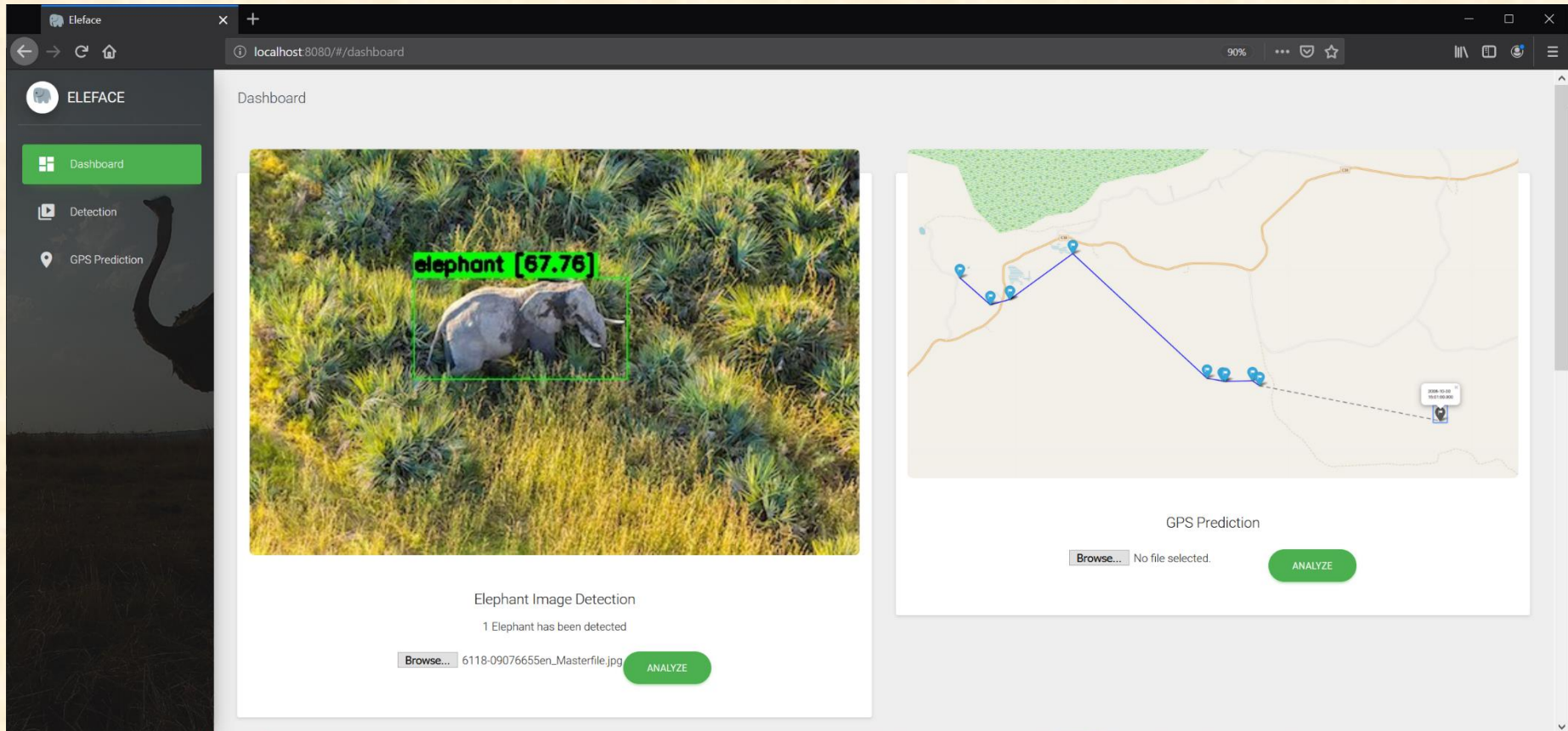
Project Overview



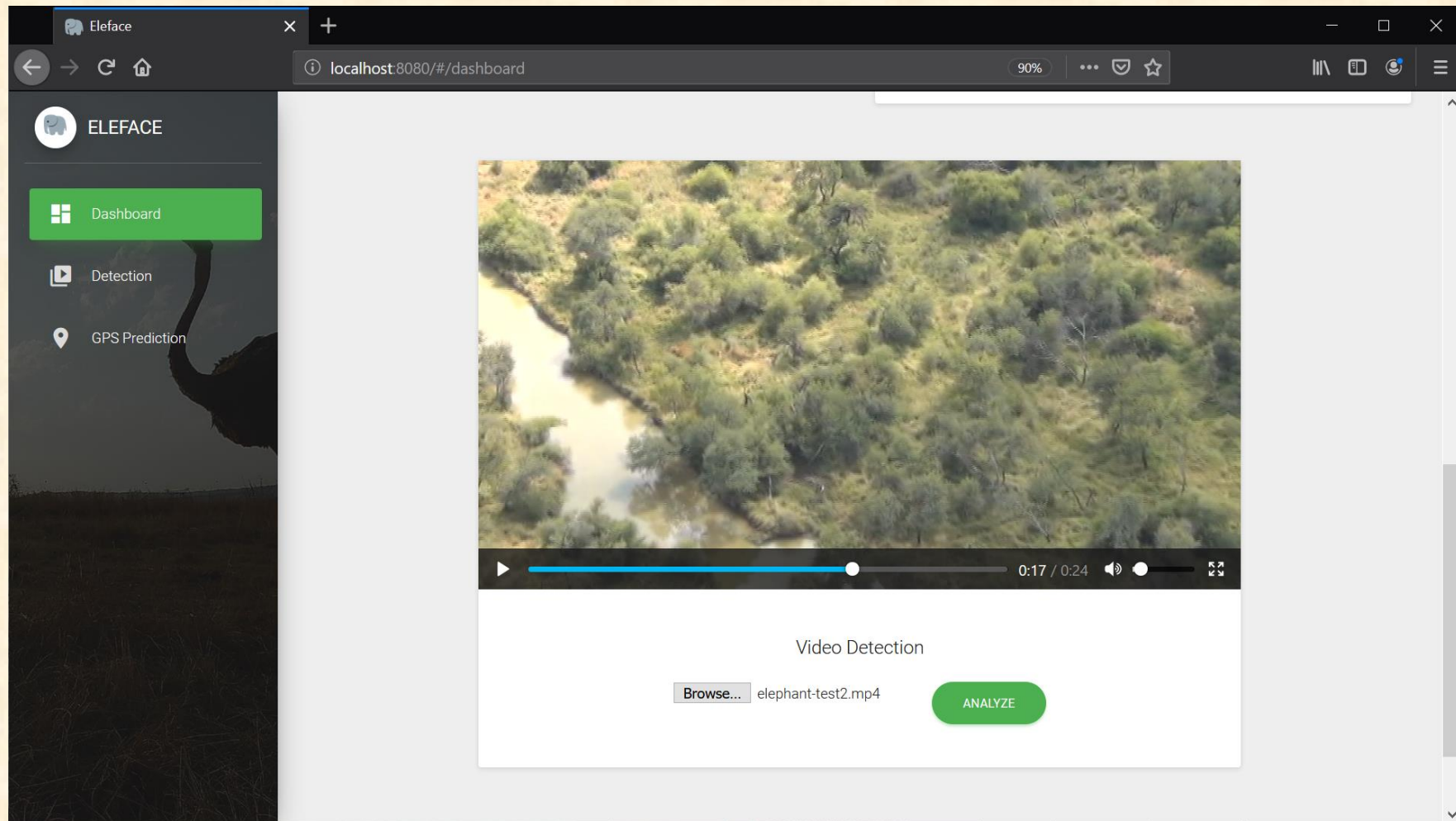
System Architecture



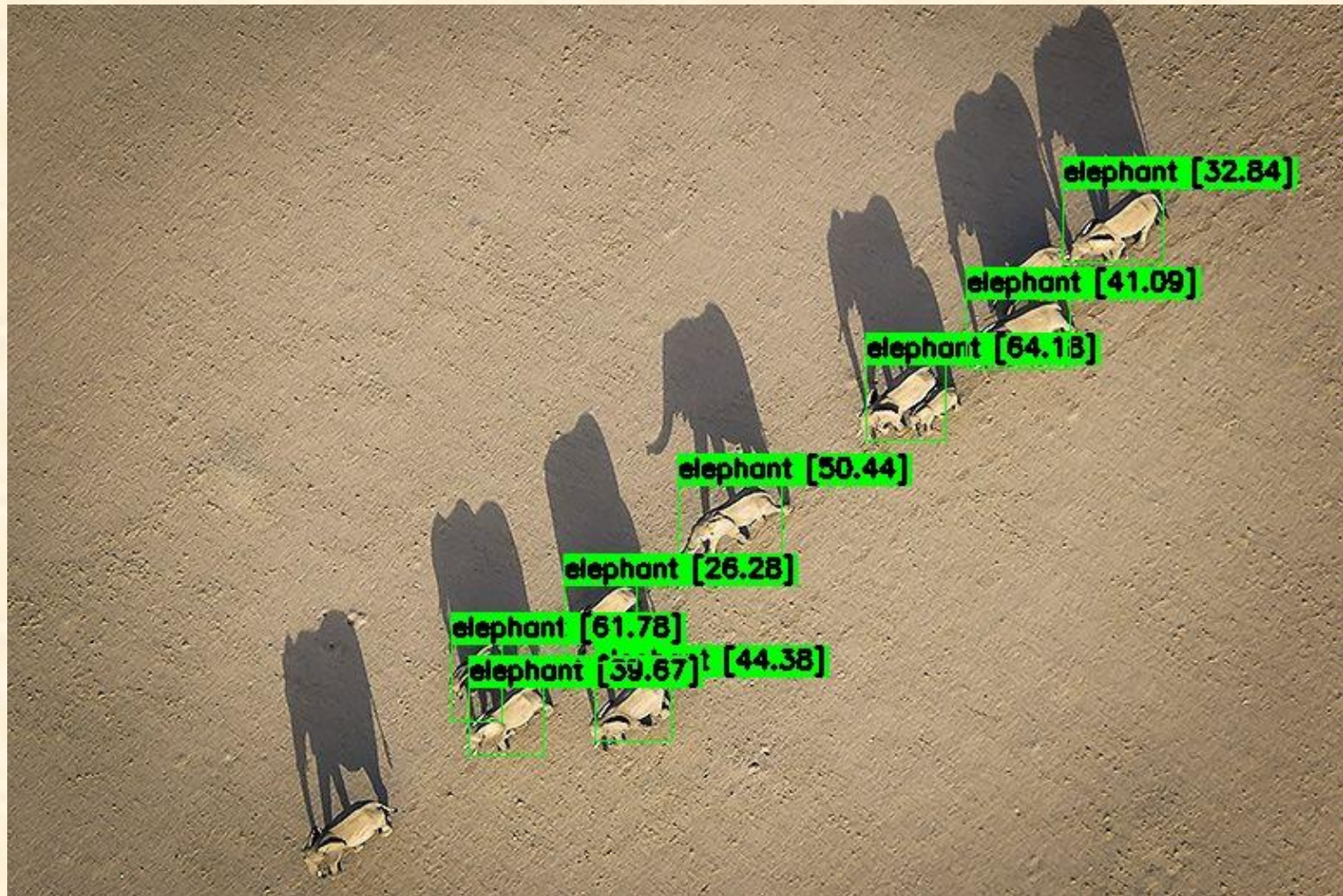
The Dashboard



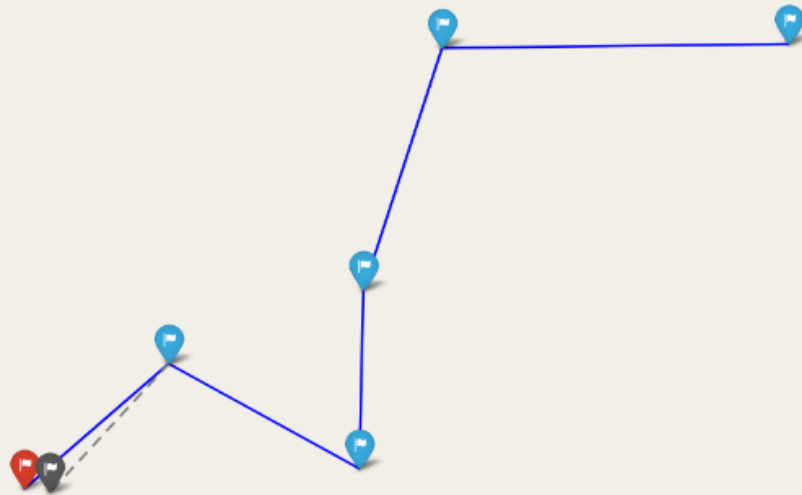
Elephant Video Viewer



Elephant Detections



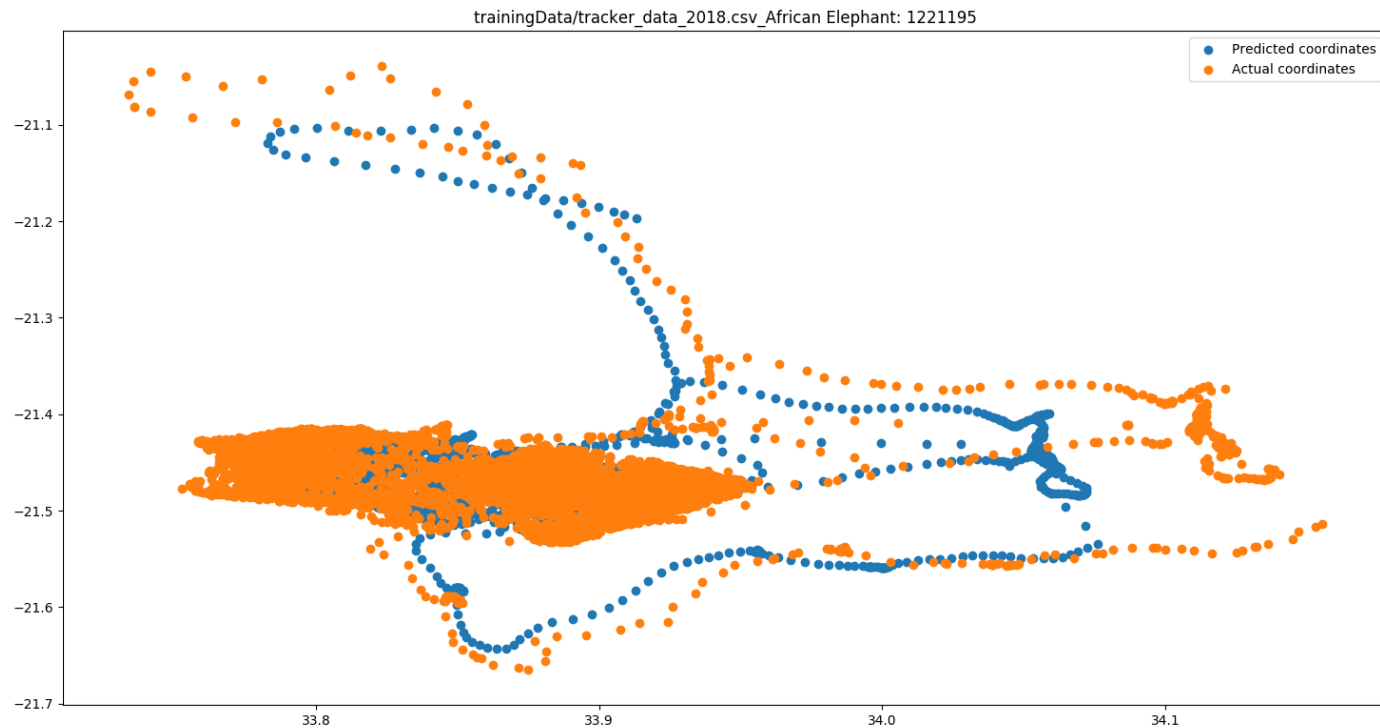
GPS Prediction Map



Leaflet | Data by © OpenStreetMap, under ODbL



GPS Prediction Accuracy



What's left to do?

- Build out functionality of Dashboard
- Expand the dataset
- Integrate GPS prediction to Dashboard
- GPS feature selection optimization

Questions?

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