

MICHIGAN STATE

U N I V E R S I T Y

Beta Presentation

Vessel Classifier for Marine Monitor (M2)

The Capstone Experience

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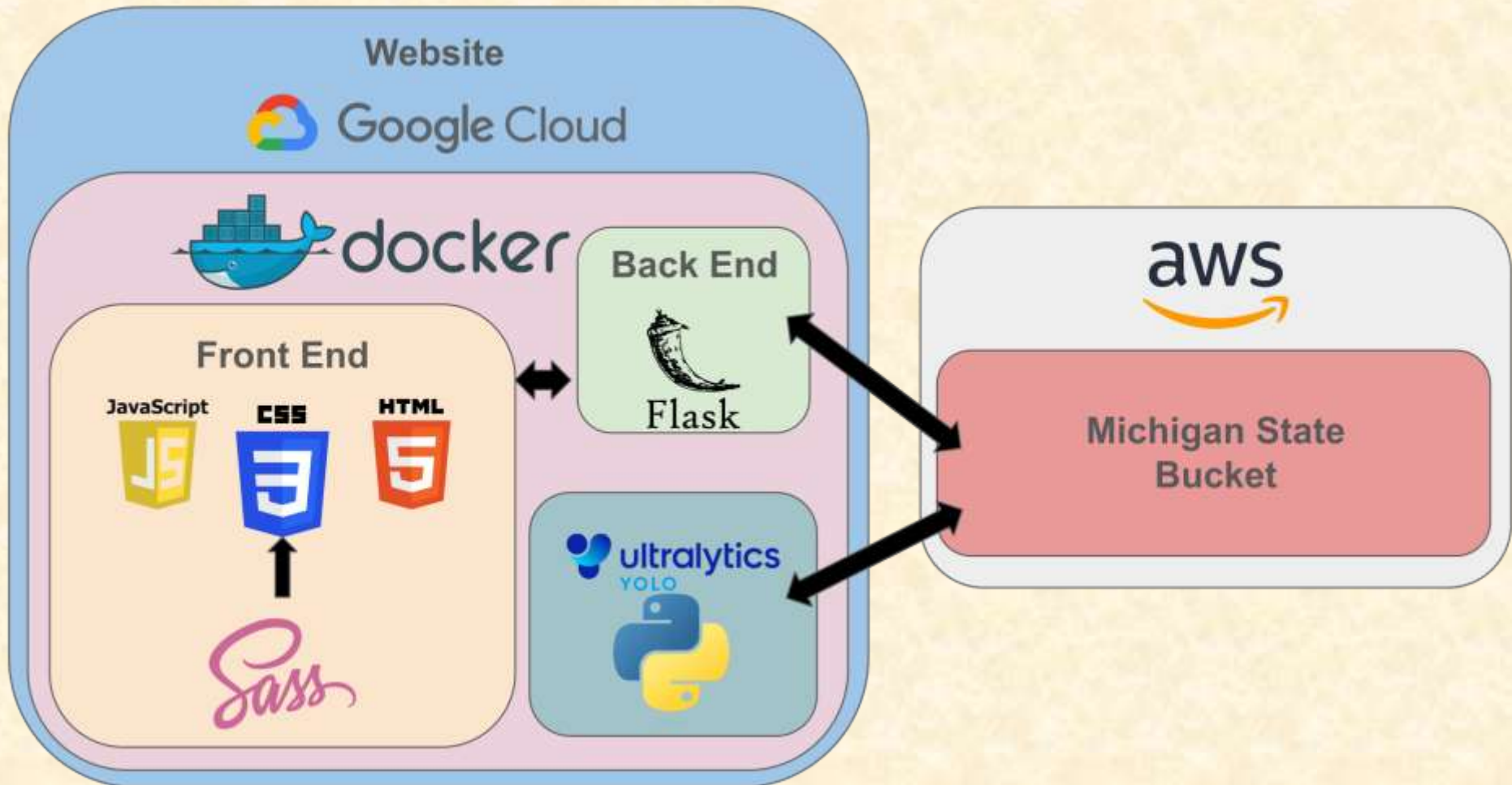
*From Students...
...to Professionals*

Project Overview

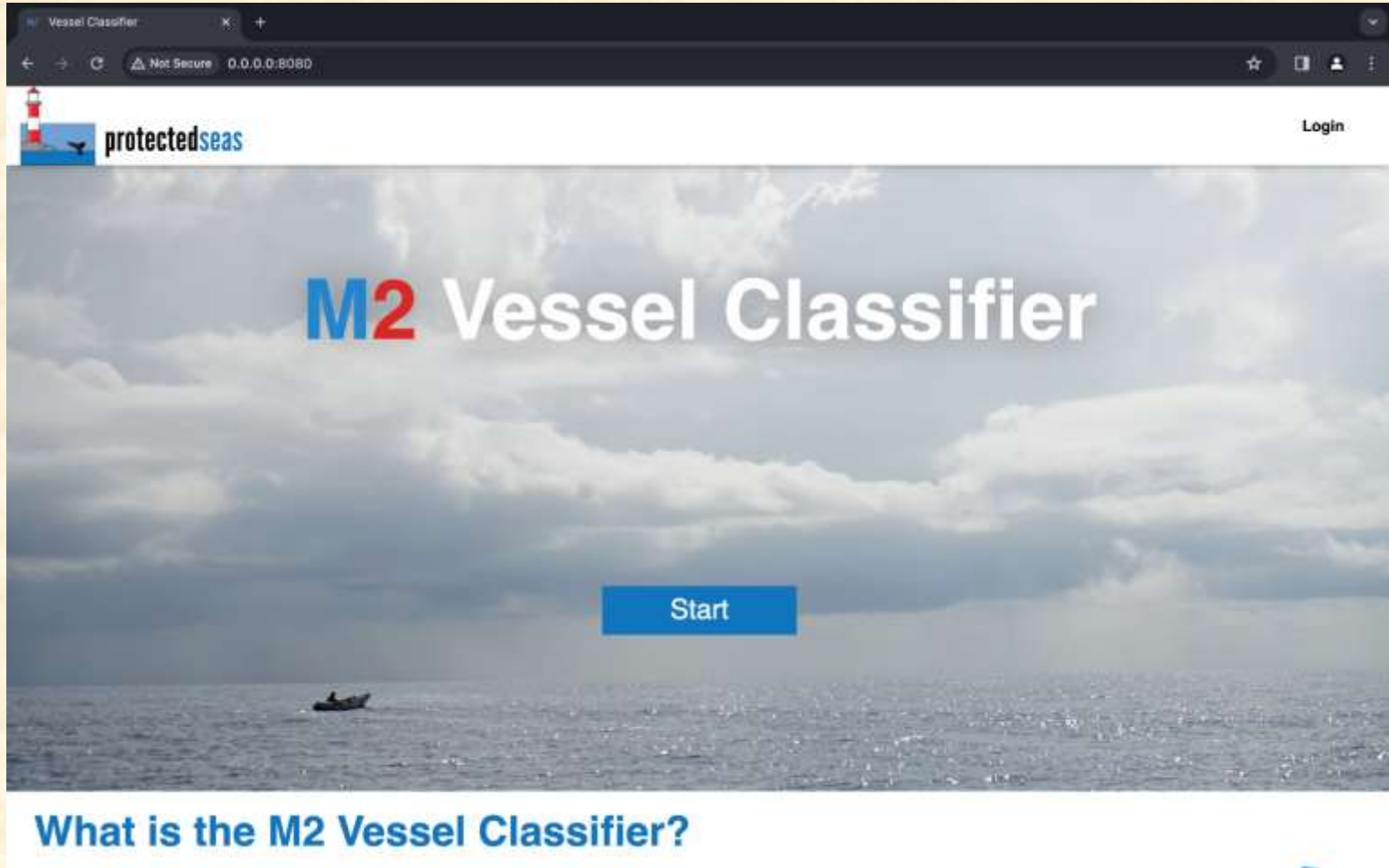
- Illegal fishing is prevalent, even in protected marine environments
- ProtectedSeas M2 monitors protected zones, but data needs to be analyzed
- Machine Learning data analysis needs large labeled datasets
- Our project streamlines dataset creation for other ML models



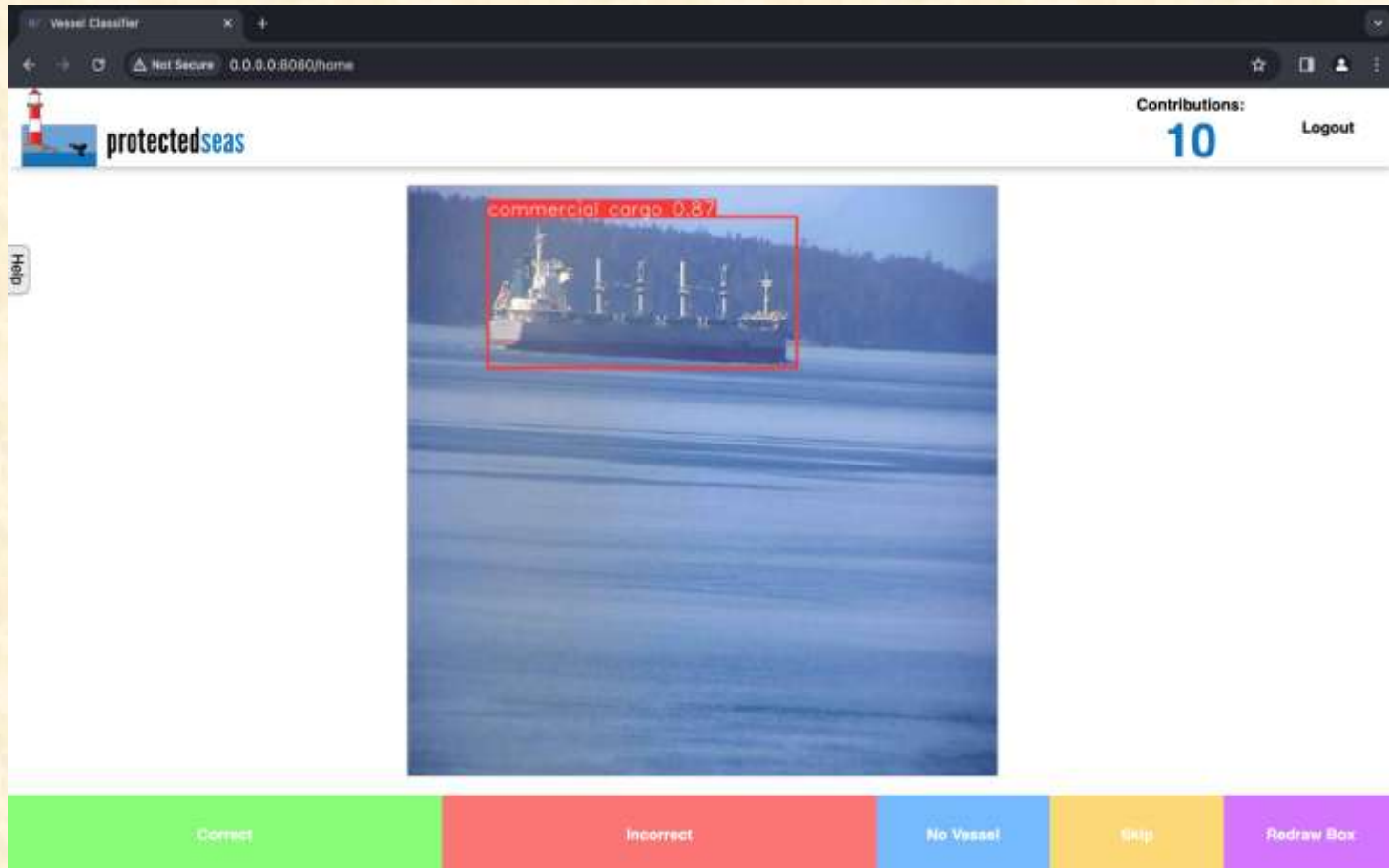
System Architecture



Website Landing Page



Website Home (Classification Page)

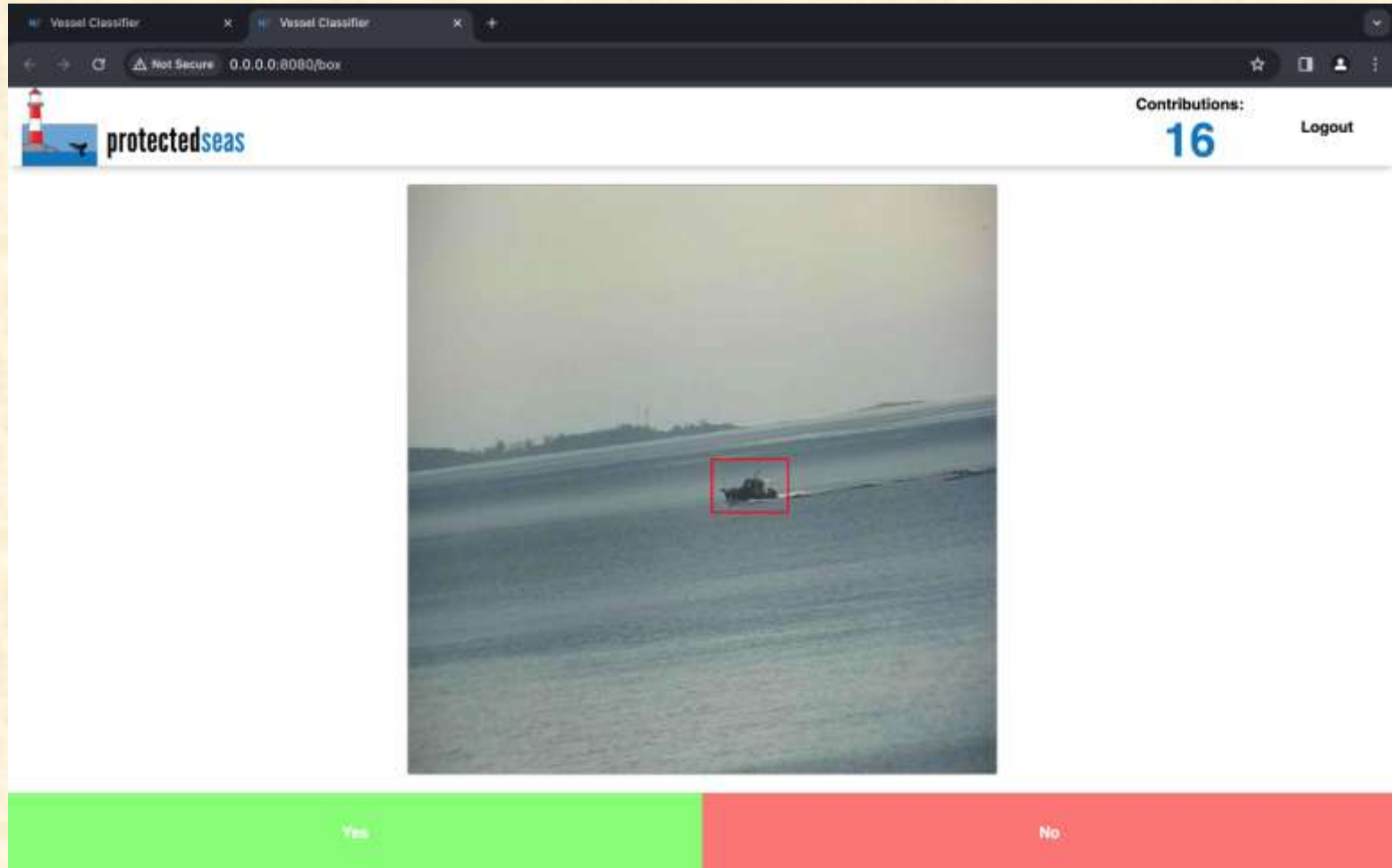


Dictionary Tab

The screenshot shows a web browser window titled "Vessel Classifier" at the URL "0.0.0.0:8080/home". The page features the "protectedseas" logo and a "Contributions: 10" counter with a "Logout" link. The main content is a "Vessel Classification Dictionary" with tabs for "Commercial", "Private", and "Other". The "Commercial" tab is active, showing sub-categories: "Large Commercial" (described as multi-story vessels like cruise ships and ferries) and "Commercial Cargo" (described as large-scale shipping vessels like container ships and tankers). A "Tug" category is partially visible at the bottom. On the right, a large image of a cargo ship is shown with a red bounding box around it and a label "commercial cargo 0.87". At the bottom of the image, there are five buttons: "Correct" (green), "Incorrect" (red), "No Vessel" (blue), "Skip" (yellow), and "Redraw Box" (purple).



Bounding-Box Redrawing Window



What's left to do?

- Stretch Goals
 - Model Statistics page
 - Restyle dictionary
 - Implement Leaderboard
 - FAQ page
- Other Tasks
 - Package and document code for sponsors
 - Tweak and improve UI



Questions?

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