# UCF CRCV REU – Week 8

By: Felipe Monsalvo

# Detection of Coastal Features from Satellite Imagery using Computer Vision

## UCF CRCV REU - Project 29

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REU Student: Felipe Monsalvo



Enabling AI to interpret satellite imagery with near-human accuracy

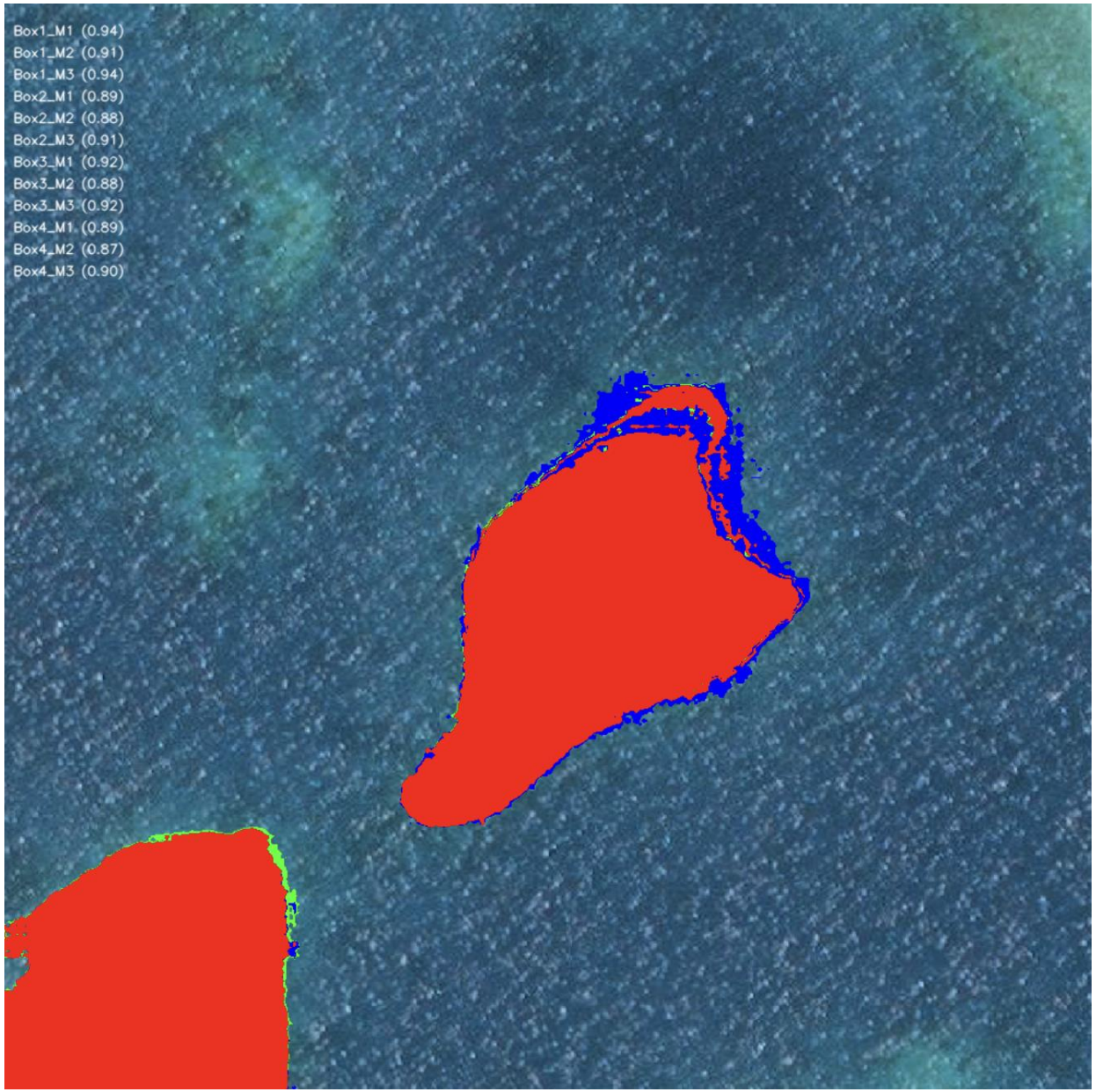


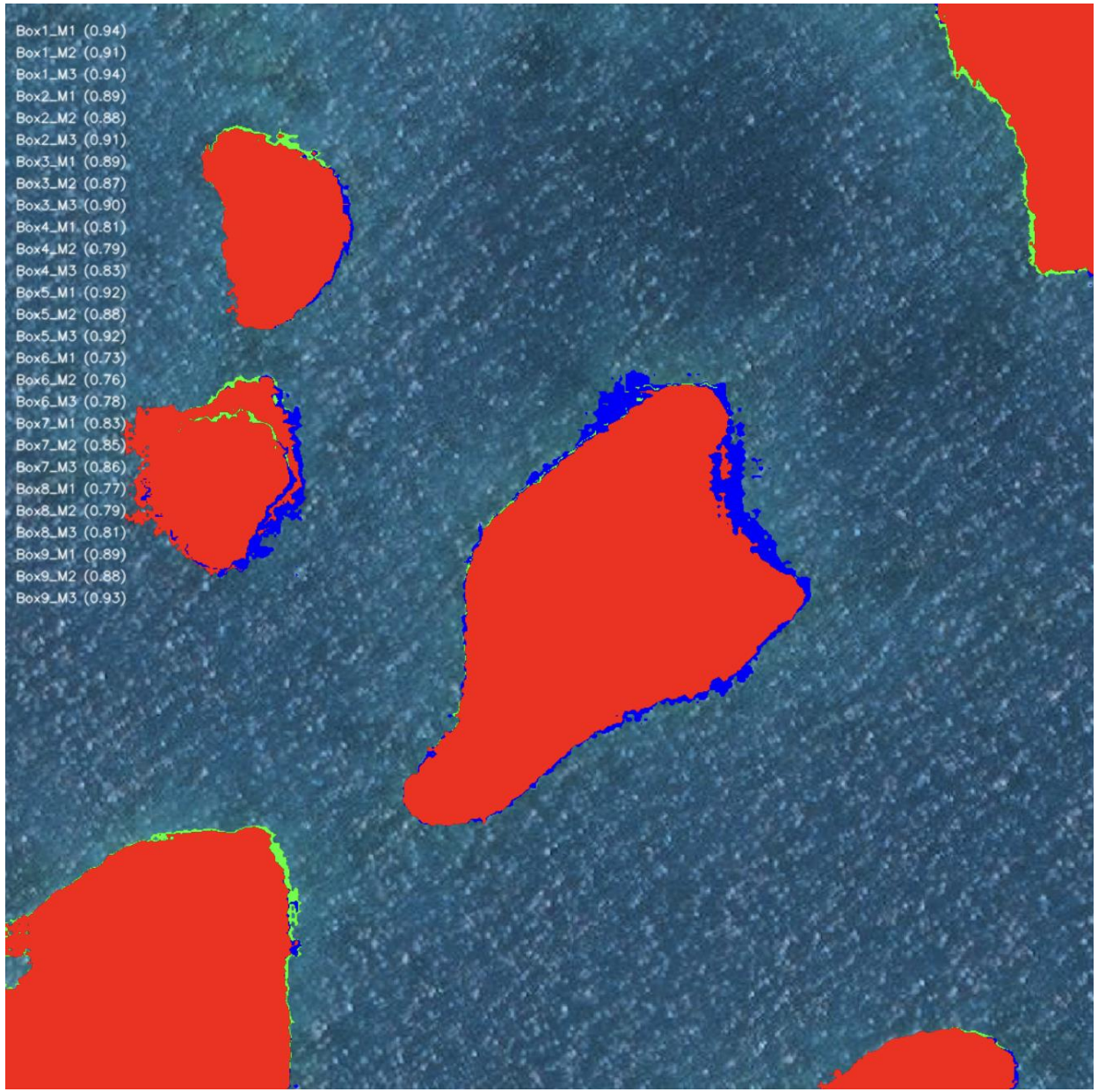
Supports maritime logistics & national safety systems

# Completed

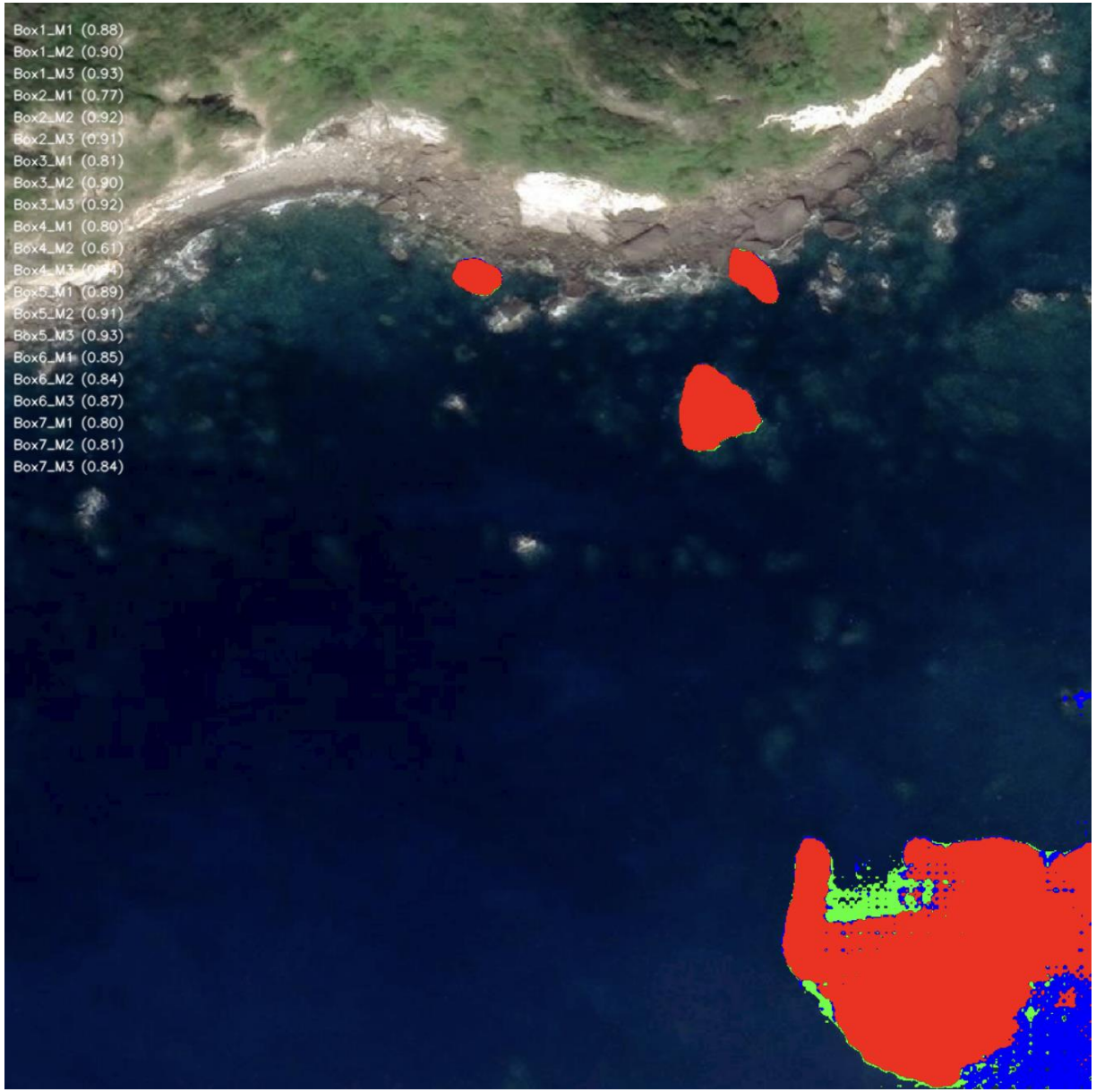
- Transitioned to start benchmark dataset creation
- Structured a benchmark dataset with clearly paired imagery and metadata (prefix-matched imagery and masks)
- CSV file designed to support dataset creation and future use training
- Expanded dataset documentation with specific contribution guidelines and improved clarity for publication readiness

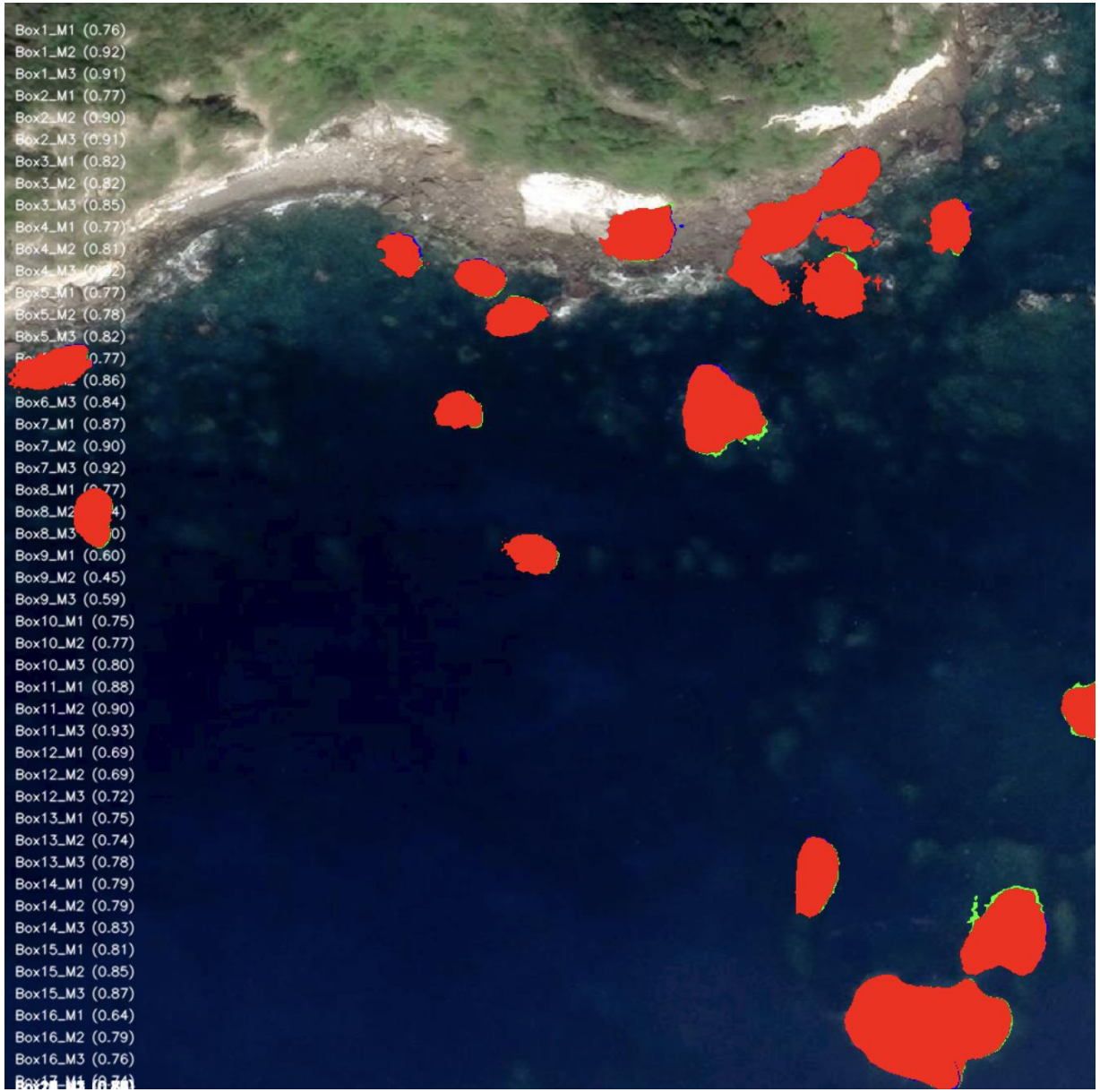
# Current Results



# Current Results



# In Progress

**Current Steps:**

- Building a ground-truth dataset using Maxar imagery
- Begin structuring experimental results and IoU analyses segmentation output

**Next This Week:**

- Deliver the initial version of the dataset for review
- Draft and design the research poster for presentation

# Schedule

| Scheduled Start | Scheduled Finish | Actual Finish | Status | Tasks |
|---|---|---|---|---|
| 7/3 | 7/10 | 7/10 | Completed | Evaluate the performance of the previous pipeline using semantic segmentation to assess accuracy and consistency across key features. |
| 7/10 | 7/17 | 7/17 | Completed | Focus efforts on a standardized benchmark dataset featuring accessible data to facilitate comparisons and transparent analysis. |
| 7/17 | 7/21 | | In Progress | Begin structuring the experimental results and quantitative analyses, including PNG-based mask outputs used for IoU evaluation. |
| 7/22 | 7/24 | | To Do | Posters due for printing. |
| 7/24 | 7/31 | | To Do | Bridge remaining gaps between poster preparation and final report drafting, ensuring alignment of results, visuals, and written analysis. |

# Thank You