UCF CRCV REU – Week 7

By: Felipe Monsalvo

Detection of Coastal Features from Satellite Imagery using Computer Vision

UCF CRCV REU - Project 29

Lead: Harry Newton, Ph.D., Leidos Data Scientist

REU Student: Felipe Monsalvo



Enabling AI to interpret satellite imagery with near-human accuracy

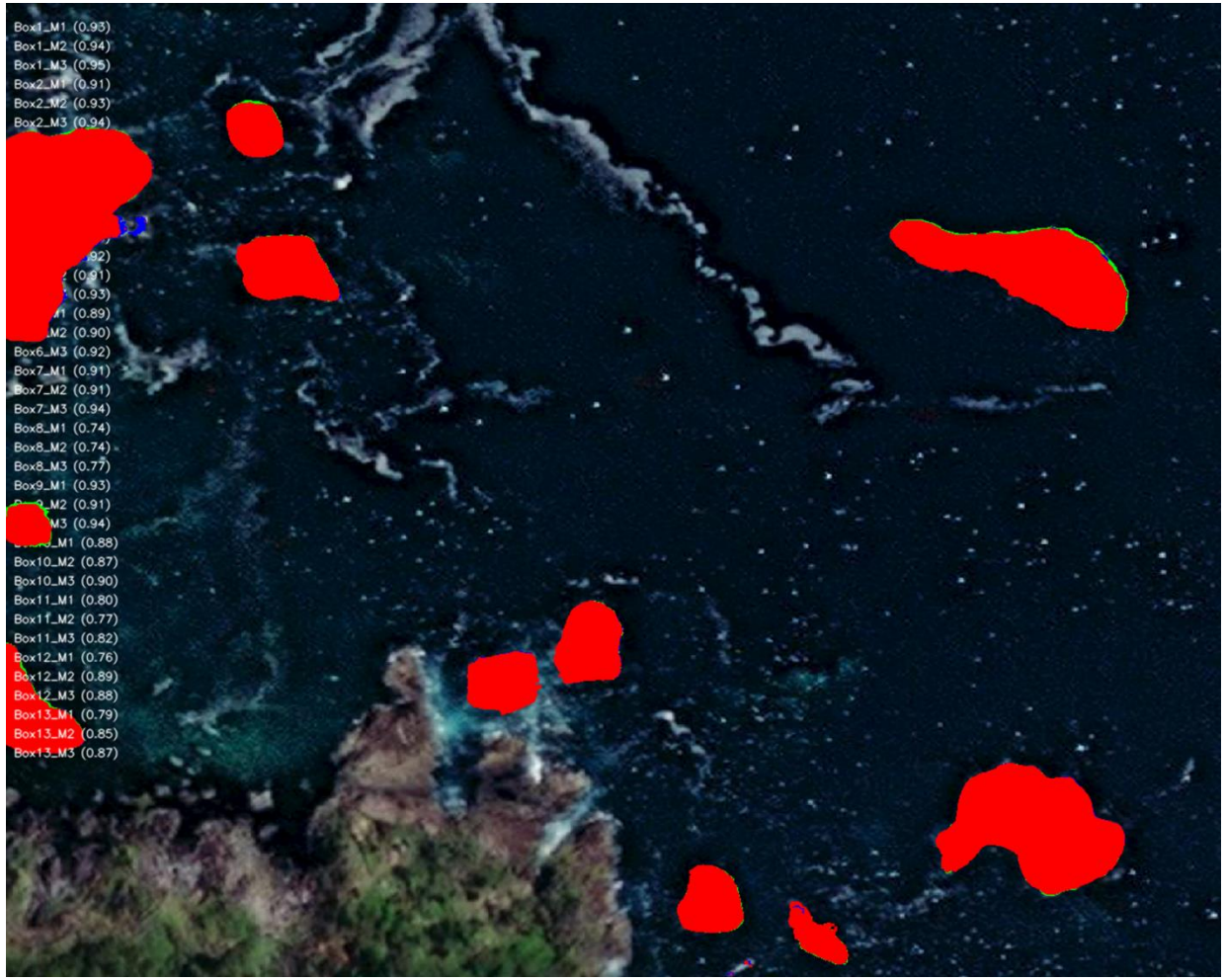


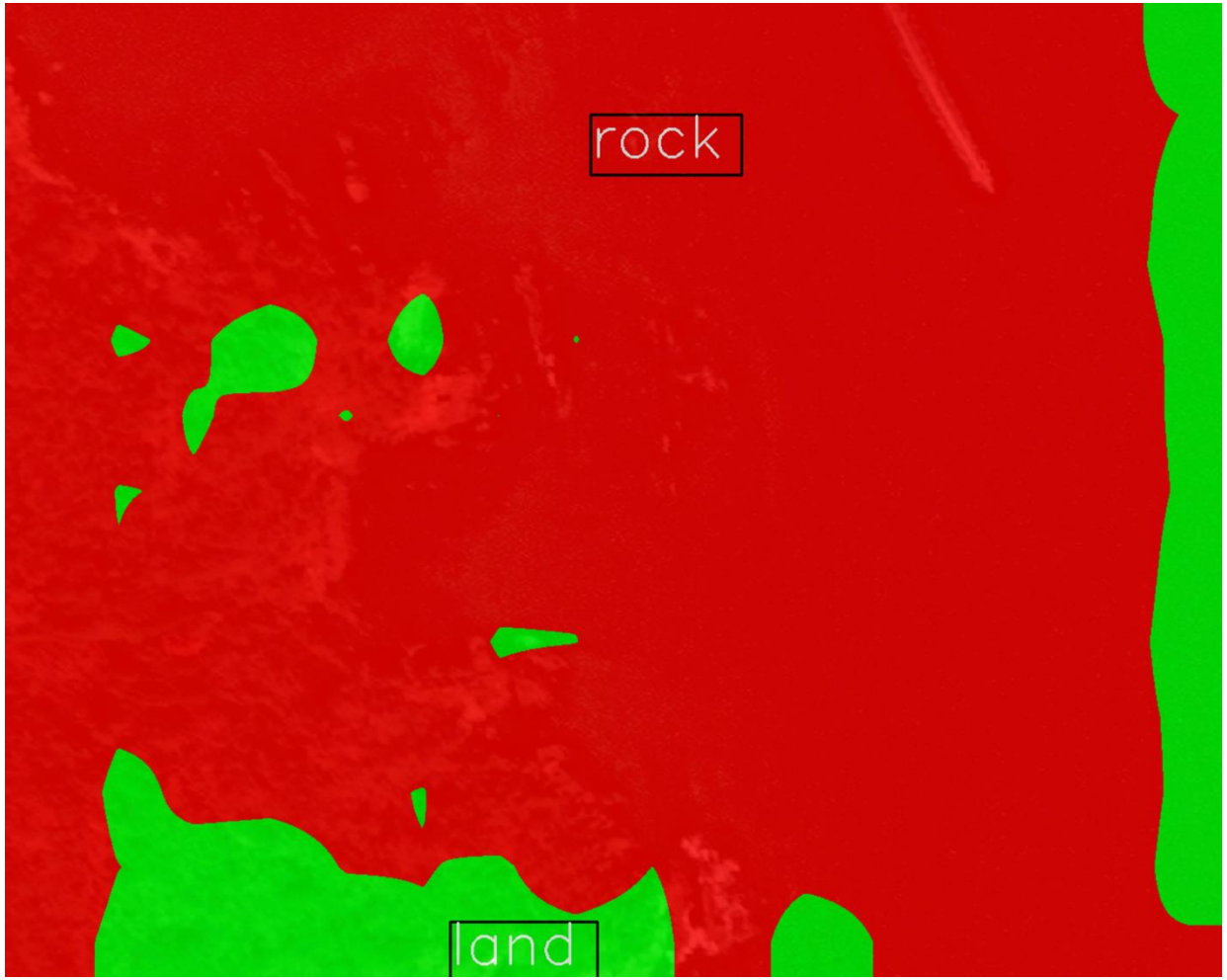
Supports maritime logistics & national safety systems

Completed

- Utilized SegEarth-OV for semantic segmentation to perform a comparative analysis
- Completed full paper draft, including all major sections and expectations
- Outlined expected contributions and finalized framing of research goals
- Met with a professor from the Naval Postgraduate School to refine publication readiness and use-case focus

Past vs SegEarth-OV





In Progress

Current Steps:

- Benchmark Dataset Focus
- Refine accuracy metrics and visual outputs for results section

Next this week:

- Keep revising paper draft and gather feedback from mentors
- Start drafting the results to include on the poster

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	7/10	7/10	Completed	CRCV Briefing
7/10	7/17		In Progress	Focus efforts on a standardized benchmark dataset featuring accessible data to facilitate comparisons and transparent analysis.
7/17	7/17		To Do	CRCV Briefing
7/17	7/21		To Do	Begin structuring the experimental results and quantitative analyses, including PNG-based mask outputs used for IoU evaluation.

Thank You