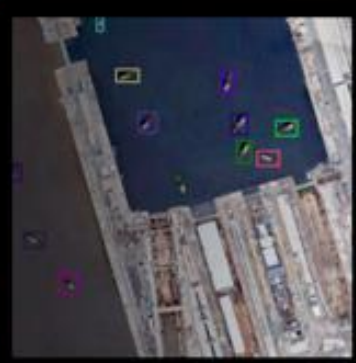
RENDERED.AI

Synthetic Data in Action

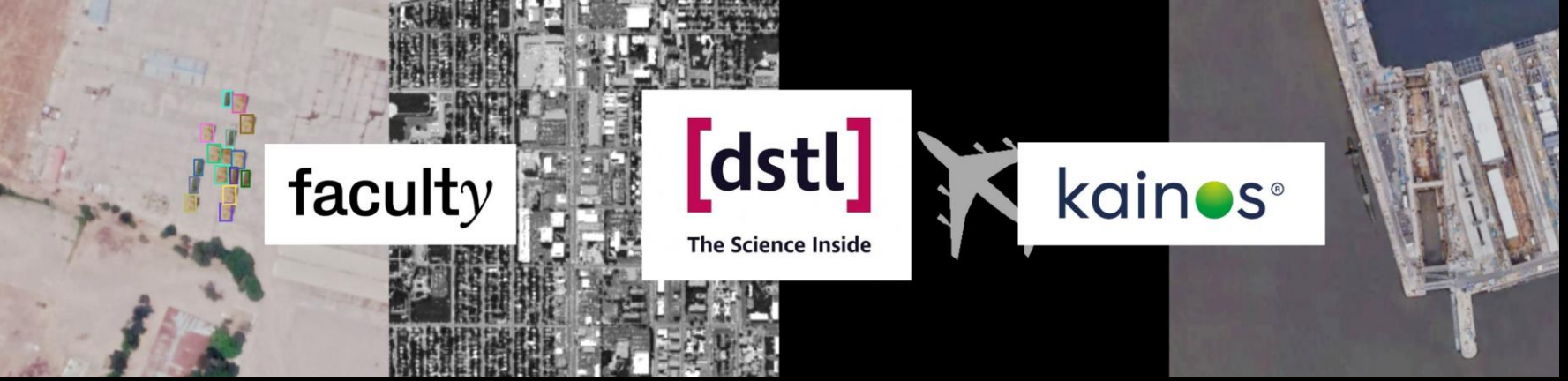
Customer Success Stories








www.rendered.ai



CASE STUDY: Dstl, Faculty & Kainos

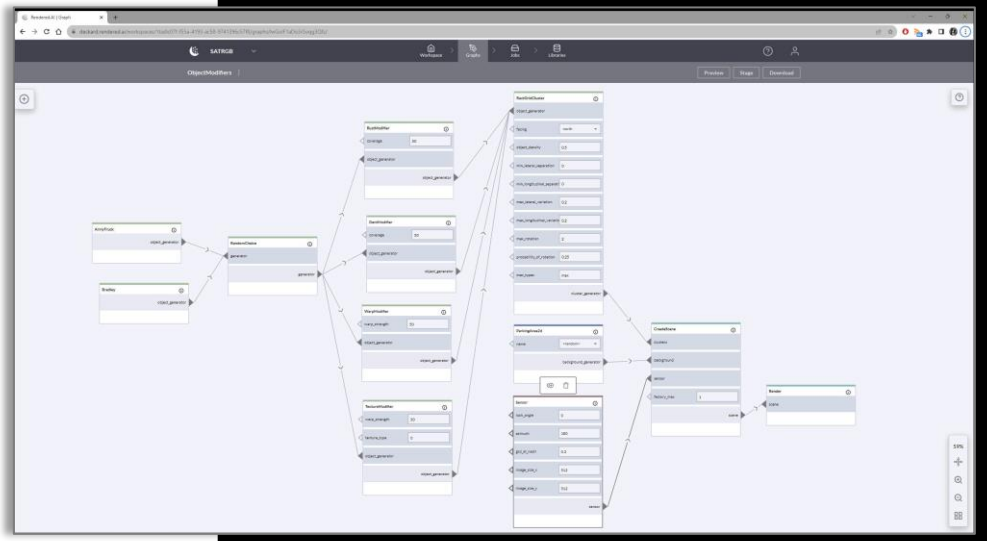
CHALLENGES

- Simulating remote sensing imagery for a future satellite collection type
- Creating imagery with difficult-to-capture real-world vehicle types
- Modifying the look and feel of vehicles and lighting

RESULTS USING RENDERED.AI

- Easily configured channels to generate unlimited synthetic datasets for 25% of the cost of real data
- Successfully demonstrated that algorithm training was possible on a collection type not yet available to Dstl using synthetic data

"My two Ph.D. level data scientists were always in this thing, even though I didn't want them generating images, I wanted them doing data science... They ended up generating their own images and owning the workflow themselves."
– Francis Heritage, Faculty



Orbital Insight

CASE STUDY: Orbital Insights & the NGA

Increased Average Precision of Training Models by

249%

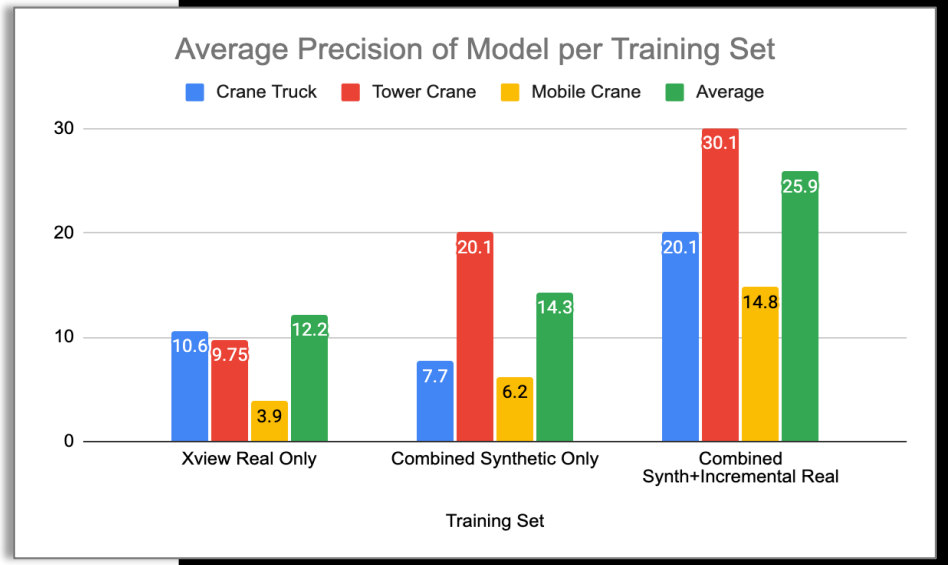
using combined synthetic data from Rendered.ai & real data

CHALLENGES

- Training AI for objects too difficult to detect by humans or automatic labeling methods due to size, shape, and shadow phenomena.
- Limited nadir imagery for objects of interest; only ~100 examples of each class were available.

RESULTS USING RENDERED.AI

- Improved AP scores by 2-3x using combined synthetic and real data
- Able to conduct hundreds of A/B tests faster with unlimited synthetic data generation to refine training processes



CASE STUDY: Planet Labs & RIT DIRSIG

CHALLENGES

- Simulating remote sensing imagery for the planned Tanager satellite flock before deployment
- Creating imagery & imagery packages simulating actual collection for AI pipeline validation
- Accessing a simulator to generate physically accurate imagery without extensive training

RESULTS USING RENDERED.AI

- Successfully established AI pipeline and tooling based on imagery characteristics and complexity for both a new sensor and platform type
- Direct access to RIT's DIRSIG simulator through an easily configurable data channel

"The synthetic data we generated with Rendered.ai and DIRSIG have been incredibly valuable to a wide range of pre-launch activities on our Tanager program.

We have been able to… demonstrate the value we expect to deliver to our hyperspectral customer base ahead of launch."

-Mark Keremedjiev, Planet Mission Director