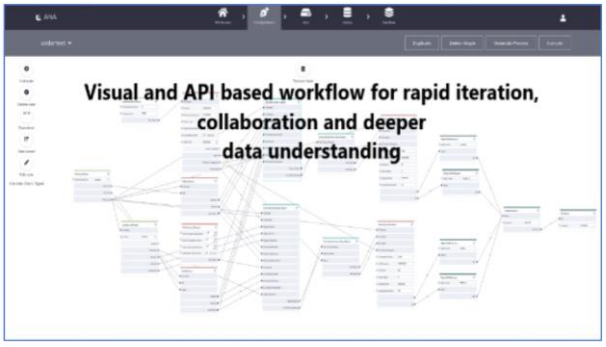
## **Performance suffers** when the real world doesn't look like the training data

Rendered.ai is a complete Common Application Framework for cutting edge synthetic data generation workflows: Physically accurate simulation of non-visual data (LiDAR/RADAR and X-ray).

- Expansive library of tools for physics based synthetic data
- Automatic or insight driven iterative data generation workflows with integrated model feedback
- Rapid intervention and collaborative workflow with Graphical and API-Based workflows
- Exploration of rare events and edge cases
- Rapid experimentation for diagnostic forecasting
- Tools to manage data (compare/ cleanse/ relate)


## Physics Based Synthetic Data in a **Common Application Framework** improves Automotive AI

- **Data Hygiene**: Address the cold start problem, generate data when data is not available, adjust training data for hidden biases, prevent concept drift and model decay, and accommodate data privacy and confidentiality requirements.
- **Accurate light transfer characteristics and fully ray traced caustics** improves realism allowing for synthetic data to be used in both AI training and test data sets.
- **Simulation of non-visual data** including full-wave electromagnetic simulations of RADAR and other sensors, allow rapid simulation of common and novel sensors as well as meeting sensor fusion needs.
- **Data science cloud native workflow** built for collaboration, ease of use, and integration into your existing data and simulation workflows. Users can work with Rendered AI through a visual programming language or API to support diverse use cases and scalability.






## What this means for **Automotive AI**

### **Quickly and Cheaply Compare/Improve Algorithmic Performance**

Working in concert with your existing simulation tools and data repositories or stand-alone, this package can accelerate your AI efforts to improve labeling, fortify your AI against edge conditions, integrate new data types from the vehicle and highway-based sensors and measure their efficacy. Quickly modify data for test and training. **Synthetic data becomes a capability - not a disposable deliverable.**