The Kognic Platform is designed with your evolving dataset at its center and provides key capabilities such as Multi-Sensor fusion, Data Refinement and Performance Analytics that have been proven in many ADAS / AD deployments.

Exploring your datasets can lead the way to improved model performance - what is inside your dataset? What scenes, objects need special attention? Does our data reflect the scope of our ODD and what we expect to encounter? Where do we focus effort for the best return on activity?

**Explore & Explain your datasets**

Upload model predictions
Comparing model predictions and annotations is essential for guiding model development. With Kognic, you can upload your own model predictions and compare them to your annotations. This helps identify gaps in your model and guides your annotation assignments.

Chunks
Create a chunk to save interesting use cases or scene/object criteria while exploring. And if you choose to correct, Kognic allows you to send data back to the annotation queue with one click.

Galleries with powerful filtering
Utilize filters to locate relevant objects based on classes and properties. Easily upload, compare, and filter objects using metadata parameters.

Metrics for data visualization
Analyze detailed statistics and interactive diagrams to visualize your data. Browse through data generated in Kognic or uploaded from other sources.

**Embeddings - leveraging latent space**

Embeddings
Embeddings represent complex objects in a computer-friendly format, enabling similarity searches and analysis of 2D representations. By using embeddings, you can more quickly explore your dataset, identify clusters, and outliers to improve your dataset or model.

Inside the Kognic Platform UI, teams can experience Embeddings as a new way to discover anomalies that are difficult to detect through more traditional methods of search within scenes.

In ADAS, a common component is the traffic sign detector and classifier. Initially, the focus may be on a limited set of signs, such as those found on German and US highways. However, as the system expands to include new countries or rural roads, additional sign classes may emerge.

Using insights from exploration, instead of re-annotating all the data when new data is captured, a more cost-effective approach is to use the updated model as a guide. While the model may not confidently detect the new signs, it can help identify potential samples from the old data that include the newly added signs.

Want to better allocate your budget towards acquiring more data and improving optimization? Engage with Kognic to enable your team with dataset exploration. We’re ready to help with software, services and proven expertise in ADAS / AD.

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