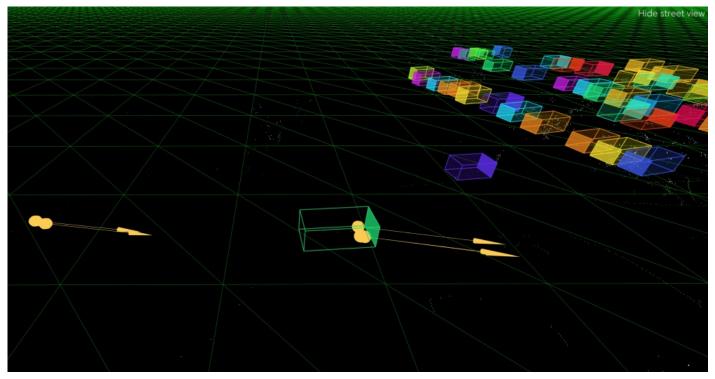
Scale API Launches Sensor Fusion Annotation API for LIDAR and RADAR Point Cloud Data

Scale API, a training data and human microtasks platform, has announced the launch of Sensor Fusion Annotation API for LIDAR (Light Detection and Ranging) and RADAR (Radio Detection and Ranging) point cloud data. The company has released these two products to help automobile OEMs and self-driving car companies accelerate the development of perception algorithms for autonomous vehicles.

Scale API provides a cloud-based service that customers can use to send massive un-labeled datasets which are then annotated by the company for the training of computer vision models. Scale API handles all the annotation and quality control to label the datasets. The people behind the scenes ensuring annotation quality and scalability are called "Scalers." Scaler performance is tracked over time, and the tracking data is used to build automated quality pipelines.

The company already provides an <u>Image Annotation API</u> which uses object recognition to label datasets for training computer vision models and algorithms. In addition, Scale API provides APIs for OCR and image transcription, categorization, comparison, and data collection.



Screenshot of RADAR sparse scene understanding for longer range detection within 150 meters. - Image Credit: Scale API

With the <u>Sensor Fusion Annotation API</u>, customers can send unlabeled camera, LIDAR, and RADAR data to be annotated for training 3D perception models. LIDAR and RADAR annotation identifies objects in a 3D point cloud and draws bounding cuboids around the specified objects, it then returns the positions and sizes of these boxes. The API supports all major sensors for 3D perception, and the data provided by the API can be used to power autonomous vehicles such as cars and drones.

ProgrammableWeb reached out to Alexandr Wang, co-founder and CEO of Scale API, who explained that the core use case for machine learning engineers is creating and augmenting large training datasets. "It's very easy to send data to Scale API automatically using our Sensor Fusion and Image Annotation APIs, and then the data will be populated for our customers automatically via callbacks," said Wang. "For example, some of our customers have hooked up their integrations so that once a disengagement occurs on one of their vehicles, that data gets automatically sent to us to label, and they will automatically trigger a re-training of their algorithms once that data gets sent back."

Wang explained that Scale API has always been developer focused which makes a huge difference for their customers. "We work with machine learning engineers at these companies, and they want to have an elegant API to be able to send and interact with their labeled data," Wang told *ProgrammableWeb*. "It's worlds better for engineers compared to a dashboard approach or sending data via FTP." The Scale API Sensor Fusion and Image Annotation APIs provide programmatic access to a number of annotation types. Among the annotation types available are LIDAR/RADAR, semantic segmentation, polygon, bounding box, line, point, and cuboid.

Wang said that the company sees self-driving cars as the initial use case, but LIDAR and RADAR are important for nearly all fields of robotics and computer vision to augment image data with valuable 3D perception. That includes use cases like drones and surveying imagery as well as robots (e.g. delivery, manufacturing, and security). One example use case would be using Scale API to train machine learning models and algorithms to detect roof damage from drone imagery automatically.

"It's clear that the largest bottleneck for the delivery of machine learning and AI for the vast majority of use cases, including self-driving cars, is access to high-quality labeled data," said Wang. "Just like how AWS enabled a revolution in software development by fully solving the hardware infrastructure layer, we aim to do the same for AI development by providing the infrastructure for labeled data."

For more information about the Scale API platform, visit <u>https://www.scaleapi.com</u>.