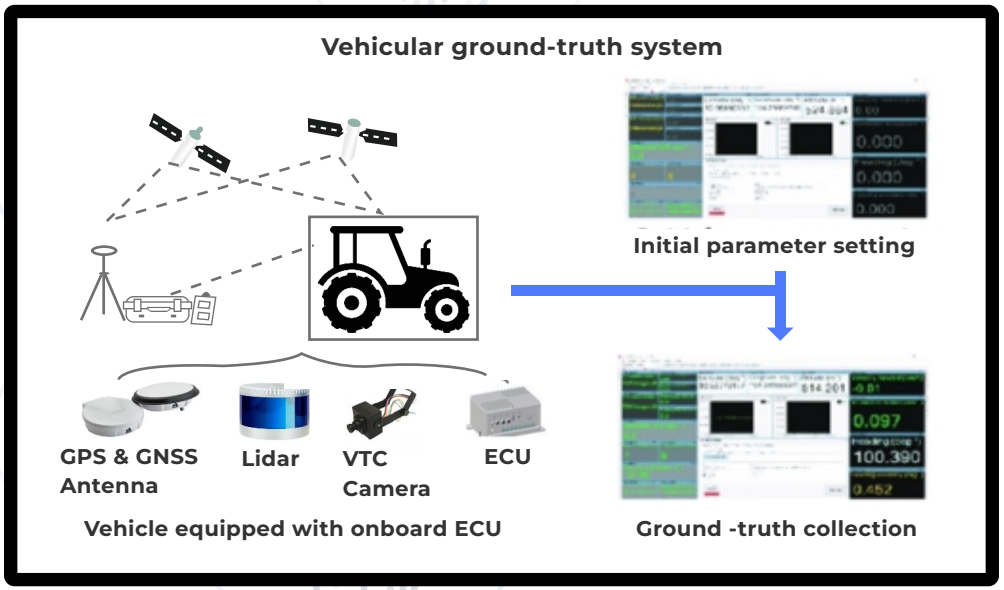
AUTONOMOUS VEHICLE GROUND TRUTH

TECH STACK:

Python | C | C++ | JSON | GNSS | LIDER Sensor



CLIENT:

The client is a leading industrial equipment The client is building an Autonomous vehicle for agriculture purpose. Data generated from camera must be cleaned, processed, and labelled for machine learning algorithm with privacy protected of people, vehicles

CHALLENGE:

Manual data labelling is time taking laborious process, but to design and build a Ground Truth system based on video + Ouster LIDAR data captured in the test field requires multiple development and validation testing skill that is rare combination.
Define a standard interface/description of each of the test field scene outputs (objects, free space, position)
Intermediate algorithm outputs to evaluate added value of each algorithm from the detection pipeline.
Record video + Ouster LIDAR data together with the Data team a limited version of the test field scene catalog (as defined by the use cases)

SOLUTION:

Implemented a Ground Truth system based on video + Ouster LIDAR data captured in the test field to automate the data labelling, masking of privacy information.
Automated validation and reports (using Jenkins).