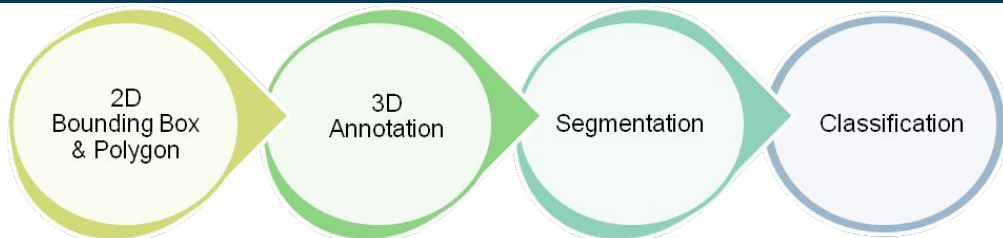


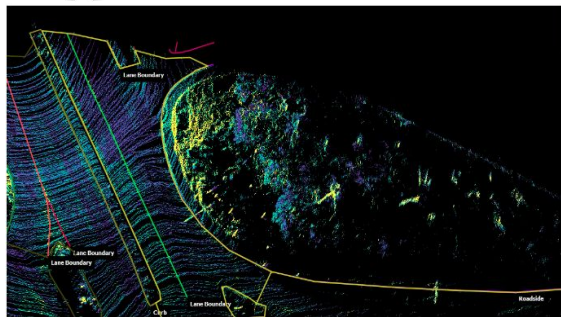
CASE STUDY

B2B - Canada Based Technology Company Deploys B2R Technologies To Provide Data Labeling Services

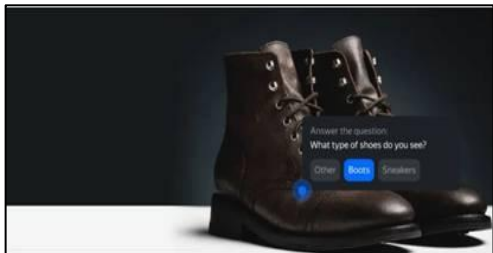
Annotation Services



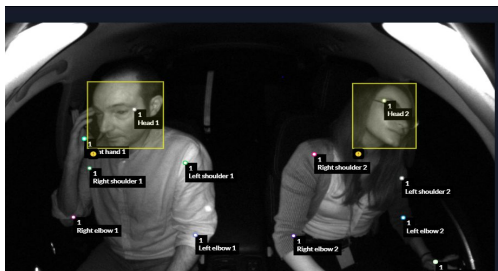
Bounding Box



3D Point Cloud - Lidar



Classification



Keypoint Annotation



Polygon & Segmentation

▶ **Accurate and efficient annotation for computer vision, natural language processing, and speech recognition**

▶ **Quality assurance, data privacy, and security are prioritized to ensure correct labeling and meet client requirements**

▶ **Customizable solutions cater to various industries and data types, including ADAS/Automotive, healthcare, retail, manufacturing.**



Case - Leading Data annotation & a telecommunications company based in Canada.

About the client & the challenge

THE CLIENT

The client is a leading provider of AI data solutions that leverages human intelligence to enhance machine learning models. With a global community of over 1 million annotators and linguists, they help companies improve their AI systems for applications ranging from smart products to speech recognition and bot interactions.

Their services include customer and technical support, sales and marketing, digital transformation, and back-office processing for industries such as telecommunications, healthcare, financial services, gaming, and technology.

THE CHALLENGE

- The client was facing quality issues with its existing vendors.
- The client faced challenges in managing the delivery of their services due to the presence of multiple vendors, which resulted in a cumbersome process. To streamline their operations and improve efficiency, the client sought to consolidate their vendor management with a single trusted partner.
- Client was looking for stable partner with strong precedence of global SLA adherence.
- Client wanted to have the access to a large workforce.

Solutions & Benefits

Project Scope

Multiple projects spanning industries across automotive, manufacturing, retail and technology. Projects included Bounding Box, Polygon, polyline, instance & semantic segmentation, Lidar & landmark.

Solution

- Setup internal training to train the team on different 2D and 3D projects
- Shift timing aligned as per client requirement for smooth delivery
- Make team ready to stretch and deliver the volume before given timeline
- Image Annotation - Build high-quality image datasets using data annotation tools that support 2D/3D bounding boxes, polygons, polylines, landmarks and segmentation.
- Proper supervisor allocation for efficient and quick communication with client.
- Error calibration process set up between client & B2R to understand logics and nuances together
- Monthly RCA and Process Improvement plans implemented to smoothen out troubled areas

Benefits

- Delivering high quality annotation work in different projects
- Creating and enhancing the data to enable better AI via human intelligence
- Train autonomous vehicles, drones and other computer vision models
- improve object detection, facial recognition, boundary recognition, movement and prediction
- Low attrition compared to industry standards as well as low cost margins resulted in higher profitability
- Data compliance & regular audits (internal & external) through improved compliance controls
- Efficiency gained & quality improved month on month basis due to continuous Root-Cause Analysis (RCA) and implementation of improvement plans

Project Throughput

| Project Wise AHT | | |
|------------------|-----------------------|---------|
| Project Type | Annotation Type | AHT |
| 2D | Polygon | 0:00:50 |
| 2D | Polyline | 0:00:20 |
| 2D | Bounding Box | 0:00:25 |
| 2D | Landmark | 0:00:08 |
| 2D | Instance Segmentation | 0:02:00 |
| 2D | Semantic Segmentation | 0:01:40 |
| 3D | Bounding Box | 0:00:30 |

| Project Wise Daily Throughput | | |
|-------------------------------|-----------------------|---------------------------|
| Project Type | Annotation Type | Daily throughput / Person |
| 2D | Polygon | 500 |
| 2D | Polyline | 800 |
| 2D | Bounding Box | 700 |
| 2D | Landmark | 2100 |
| 2D | Instance Segmentation | 240 |
| 2D | Semantic Segmentation | 240 |
| 3D | Bounding Box | 500 |

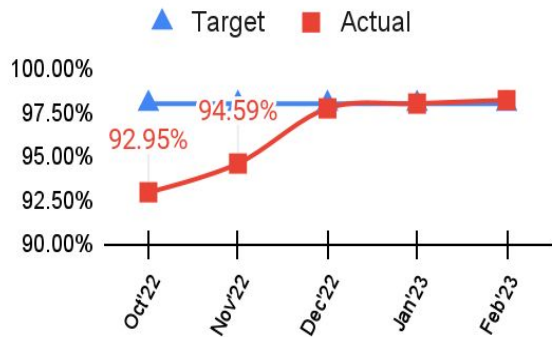
| Capability - B2R | |
|---------------------------|-------|
| Project Type | Count |
| Total annotators in B2R | 40 |
| Total users trained in 2D | 40 |
| Total users trained in SS | 15 |
| Total sers trained in 3D | 15 |

| Ramp up - Timeline | | | |
|--------------------|-----------------------|-----------------------|--------------------|
| Project Type | Annotation Type | Based on Current Team | Based on New Hired |
| 2D | Polygon | 1 Day | 15 Days |
| 2D | Polyline | 0.5 Day | 10 Days |
| 2D | Bounding Box | 1 Day | 15 Days |
| 2D | Landmark | 0.5 Day | 10 Days |
| 2D | Instance Segmentation | 2 Day | 20 Days |
| 2D | Semantic Segmentation | 2 Day | 20 Days |
| 3D | Bounding Box | 2 Day | 20 Days |

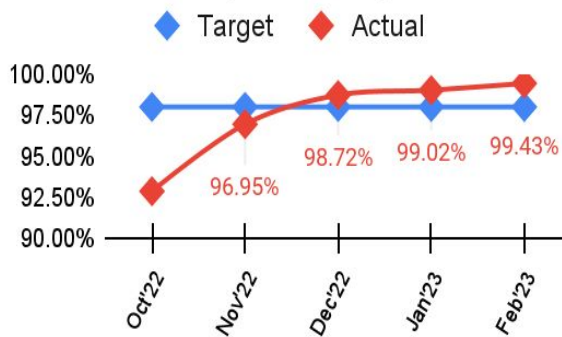
Notes - AHT id depends on the number of attributes available in the project.

SLA & Achievements

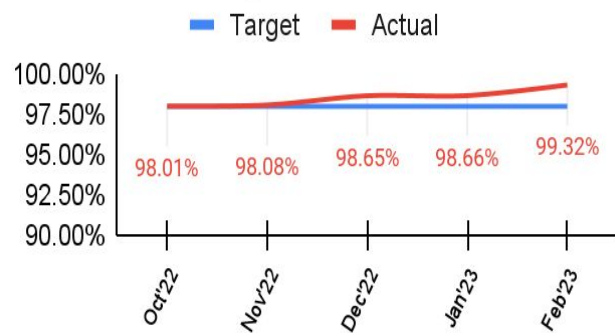
2D Annotation Quality



Polyline Quality



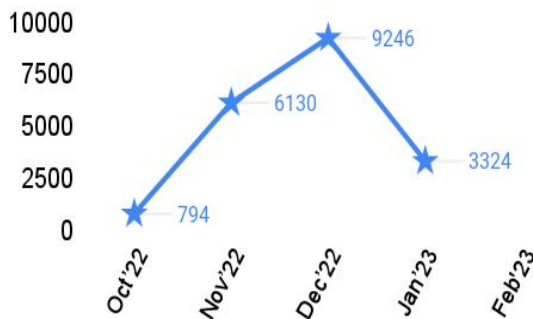
Target and Actual



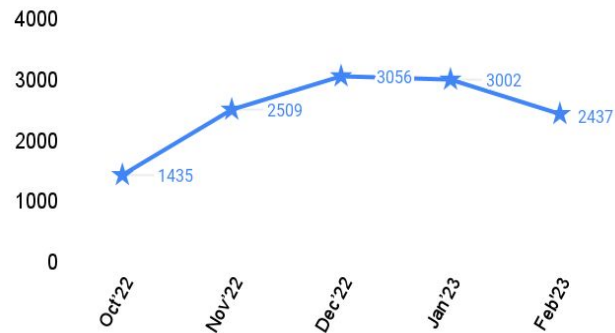
2D Box Production



Polyline Production



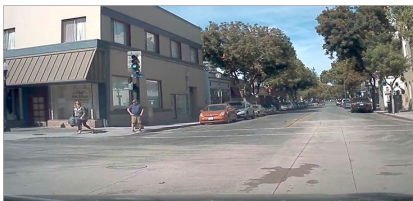
Polygon Production



Before & After

Annotation work- Polygon & Polyline

Before – (what we get)



Here we get the image of the street or highway wherein we have to annotate the free space, road edge, & invisible space

After – (what we deliver)



The drivable area called as free space and the edge of the road is called road edge. Here the red color line is marked as road edge and the blue color is marked as free space

Annotation work- Landmark and Bounding Box

Before – (what we get)



We are getting the image and have to mark the 2D box on the head and touch point on the center of the head, shoulder, elbow, hand and Knee.

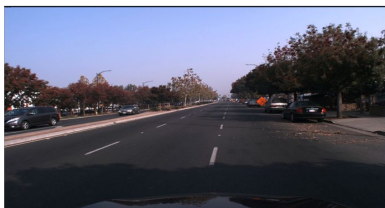
After – (what we deliver)



The front 2 person considered and marked the 2D boxes. Marked the center point of the face, shoulder, elbow, hand and knee. For this we have to consider one of the circle and mark touch point on each annotation

Annotation work- Bounding Box

Before – (what we get)



We have to marked all the road objects like vehicles, traffic objects and traffic light etc.

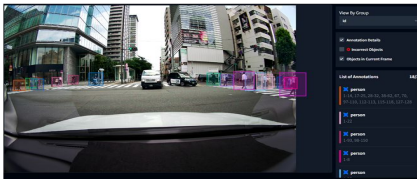
After – (what we deliver)



We have marked the 2D boxes on vehicle below, make sure the box should be tight

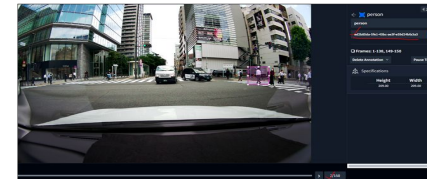
Annotation work- Bounding Box

Before – (what we get)



We will get the image with the multiple nos. of frames with the different pre annotation 2D boxes on pedestrians.

After – (what we deliver)



We have to select the first most pedestrian box and need to copy the Box ID as mentioned on the screenshot below.

Value Add

Highlights

- Completed the basic training within timeline.
- Cross trained 40 Team member in 2D annotation.
- SLA met in 2nd week of live production - OTD, Productivity and quality.
- Worked on segmentation project along with the 2D annotation.
- Continue meeting SLA throughout the year for all the projects.
- Account growth from 18 FTE to 40 FTE.

Value Add

- Provide expected team size within timeline.
- Delivered multiple short term project with short notice and with good quality.
- Swift cross training in between short term projects and deliver with quality.
- Provide 24/7 support to customers whenever required.
- Provided input to client on enhancing the tool performance - Added new feature for maker and checker analysis.



Talk to us!

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