CSE523: Machine Learning

Weekly Report 4

Group Name - Logistic Legends

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Identify Abnormal driving behavior using Spatio-Temporal analysis

- This week we mainly worked on finding the centroid of the bounding box by top, left, height and width of the bounding box.

Process followed:

1. Calculate the center point of the bounding box by adding half of the width to the left coordinate, and half of the height to the top coordinate.
2. The coordinates of the centroid will then be the center point calculated in step 1.

Mathematical Terms:

Let,

- $x_{top-left}, y_{top-left}$ **:** Top-left coordinates of bounding box
- $width$ **:** Width of bounding box
- $height$ **:** Height of bounding box
- $x_{centroid}, y_{centroid}$ **:** Coordinates of the centroid.

1. **Calculate the center point of the bounding box:**

$$x_{center} = x_{top-left} + \frac{width}{2}$$

$$y_{center} = y_{top-left} + \frac{height}{2}$$

2. **The centroid coordinates are the same as the center point of the bounding box:**

$$x_{centroid} = x_{center}$$

$$y_{centroid} = y_{center}$$