Moving Direction

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Side-view:
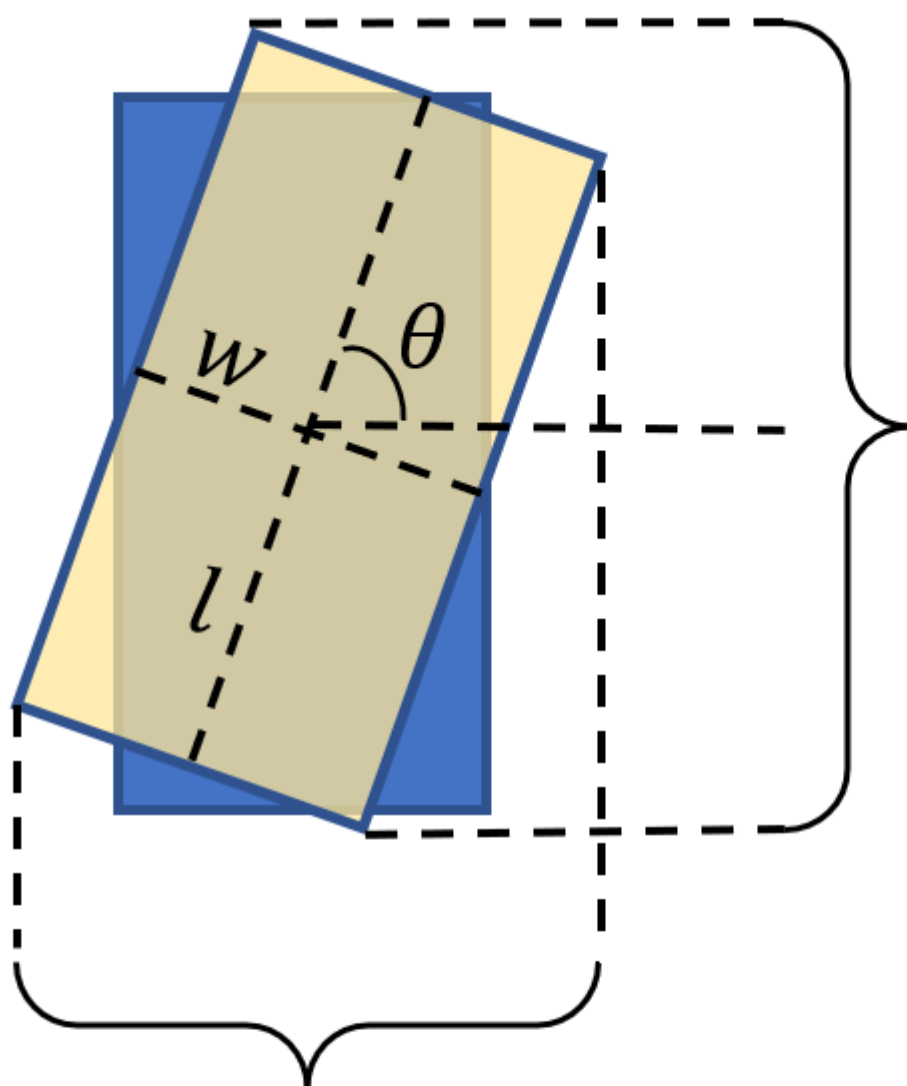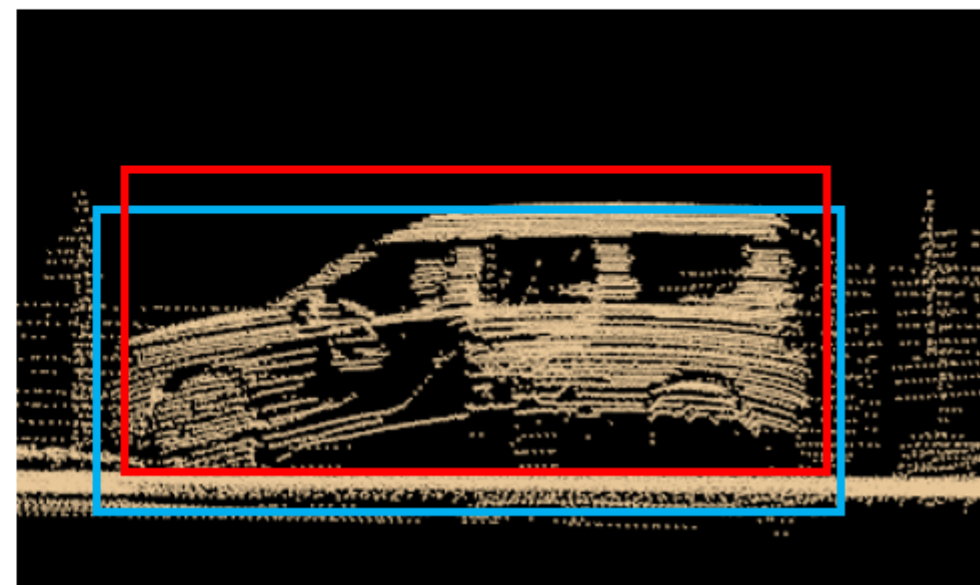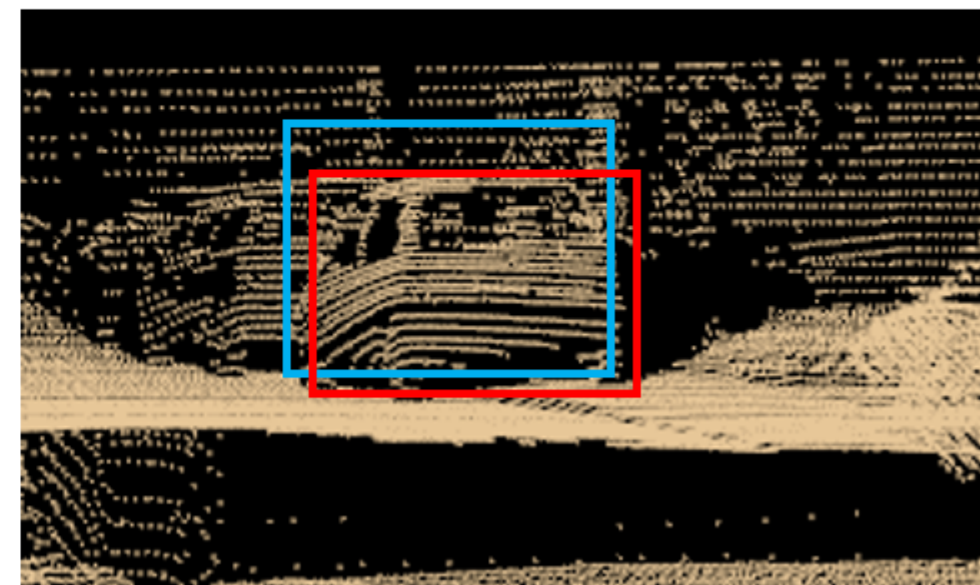
Front-view:

Bounding box before rotation

Bounding box after rotation