VWise: A Novel Benchmark for Evaluating Scene Classification for Vehicular Applications

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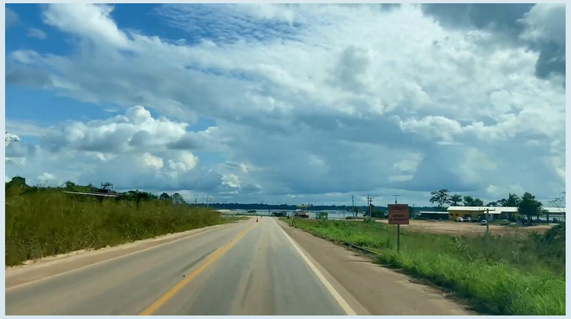
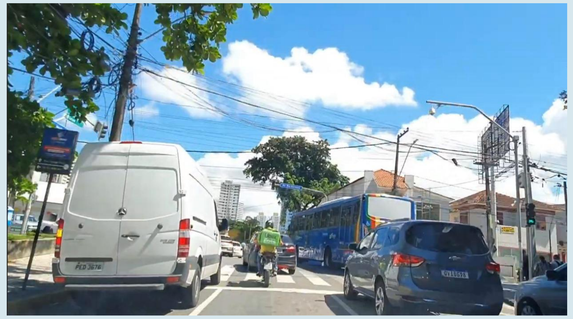
Dirt or service roads

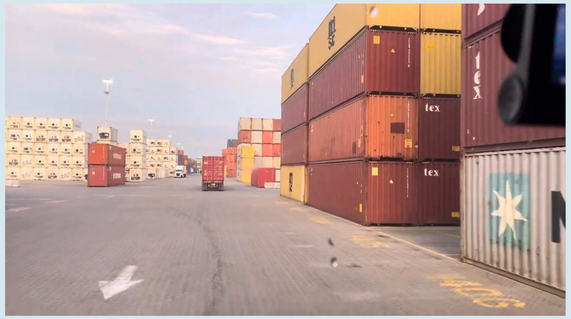


Highways



High-density avenues

Low-density avenues or streets



Ports or dock areas

Factories

Motivation

- Current datasets for tasks related to vehicular applications, such as KITTI, Cityscapes, and nuScenes are collected in countries from North America or Europe.
- Models trained/evaluated in these datasets may be geographically biased.
- We propose a novel benchmark for scene classification for vehicular applications.

Data collection

- Collected 521 public access videos from YouTube or stock video libraries.
- Queries with country names (e.g. Brazil, Colombia, Peru...) and cities (e.g., Quito, Recife...) combined with filters for in-vehicle views.

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