Bye-Bike

Vision with a Mission: Safeguarding pedestrians' safety one step at a time

By: Team Bus MRT Walk (BMW)

Problem

Context

Current Measures

As part of LTA's Walk-Cycle-Ride campaign, cycling paths will reach 1,300km in distance by **2030**

In 2024, over 200km of cycling paths are built adjacent to footpaths



Fine of up to \$2,000 or;

- Imprisonment of up to 3 months or;
- Both



Intensive

Introducing Bye-Bike

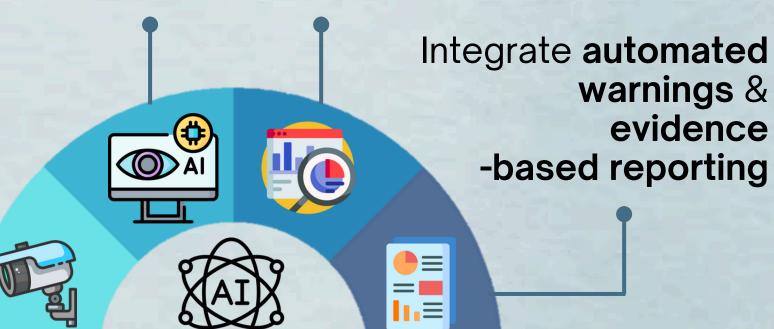
AWS Infrastructure

Virtual private cloud (VPC)

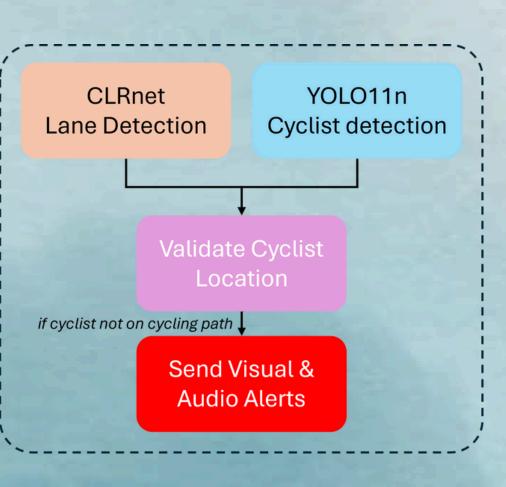
GuardDuty

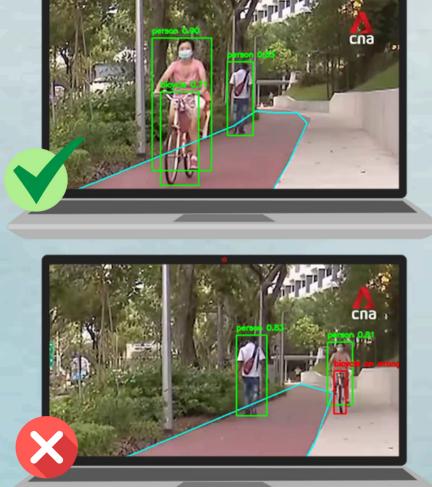
Use **analytics** to Deploy YOLO CV identify trends in model to detect violations cyclist violations

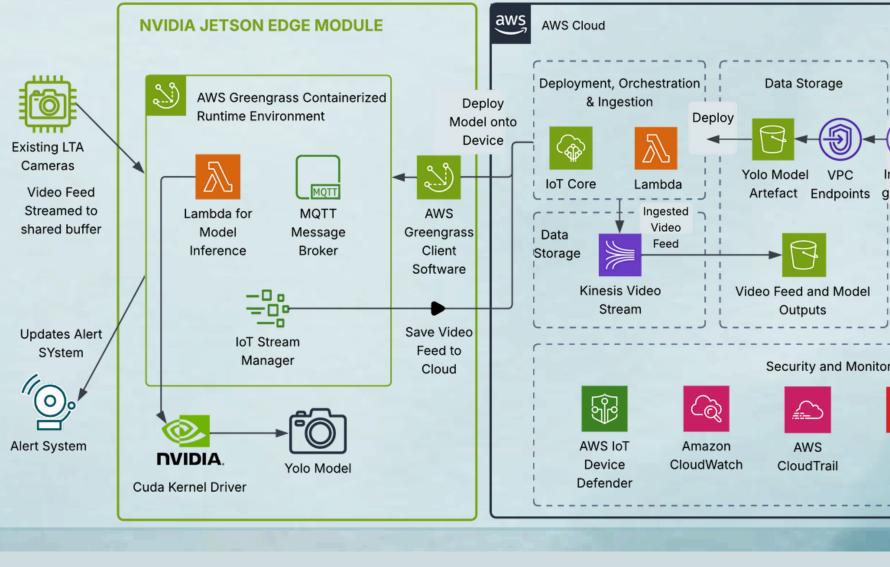
Leverage existing active mobility enforcement cameras

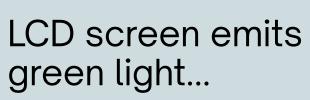






















...audio and visual warnings given



Lane

Pedestrian













Cycling

Vulnerable pedestarians have time to avoid danger ... & cyclists are warned to correct their actions

Correction



Outcome: Accident Averted

GANTT Chart

Implementation

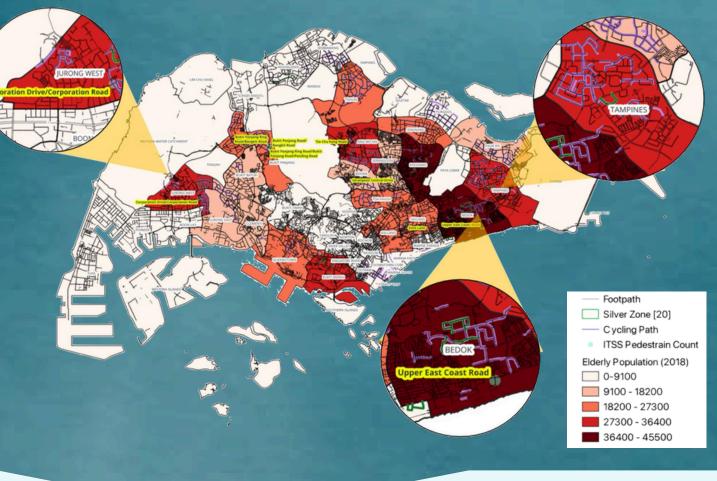
Three key locations were identified for possible pilottesting based on

elderly population density

 cycling path locations Silver Town

locations





Bye-Bike's Deployment

PROCESS Model Training Camera Installation Warning System Installation **System Testing Staff Training** Islandwide Rollout



Value Proposition



Real-time Deterrence for Cyclist Encroachment



Pedestrian-Centric Safety Solutions



Smart, Scalable Integration of solution into existing systems

Productivity Improvements

Cost Savings

Time Savings





reduction in total costs accrued

reduction in manhours spent

by automating the active enforcement of safety

Projected Impact

Near-miss accidents

40% reduction

Elderly injury avoided

50% reduction

Energy saved w/RCMS appr.

45% saved