Kabal - Yolo to traffic light detection

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Contents

Introduction

- ▶ Yolo to traffic light detection
- ▶ Theoretical application:
    - ▶ Apply the theory study algorithm, but not coding
    - ▶ Study and understand the Yolo with Darknet, OpenCV e Python
    - ▶ Explain to the class how the algorithm works
    - ▶ Train Yolo to light detection. Detect red traffic lights .stop and Green Traffic .go
- ▶ Application in a game: Video object detection
    - ▶ Train Yolo to ligh's game detection
    - ▶ If possible, do the car have action
- ▶ Document the project, relating theory to practice.
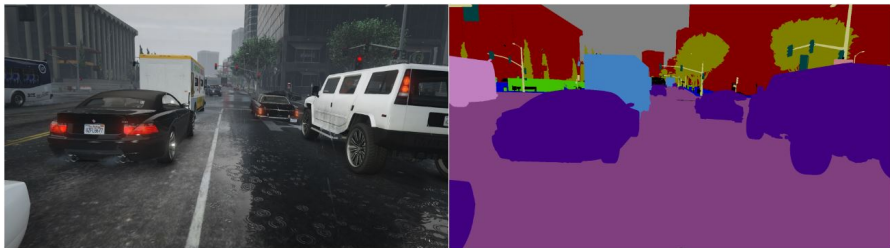
▶ Application in a game. GTA V or Forza

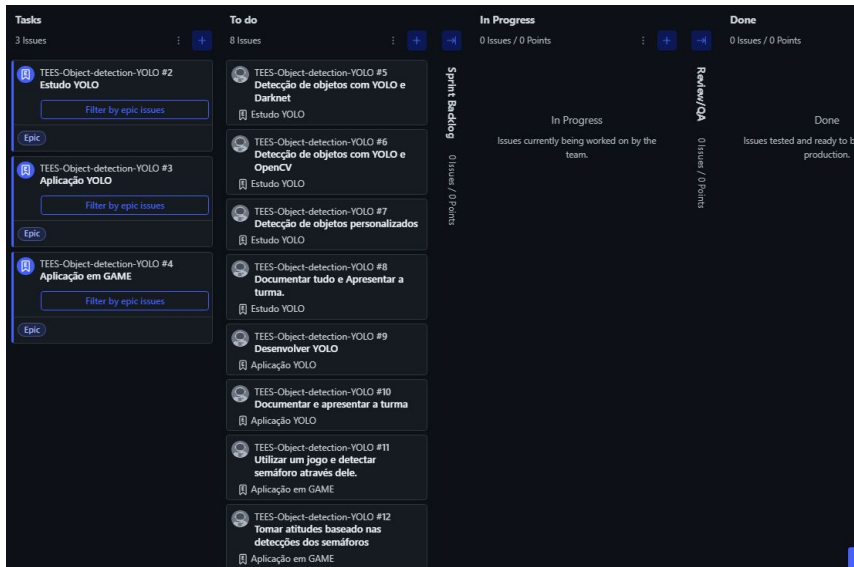▶ Application in a game. GTA V or Forza
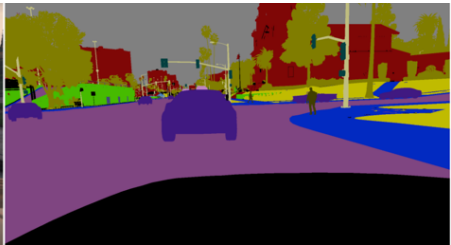
Source: Author[1]

▶ GTA V or Forza

Source: Author[1]

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Methodological process

▶ Kanban using Zenhub

Tools

▶ Tools in project

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Articles / Materials / Bibliography

- blog.roboauto.cz/collecting-data-for-neural-networks-365959ebb67c
- IA Expert Academy
- TCC Bruno Oliveira
- Playing for Data: Ground Truth from Computer Games

[1] Stephan R. Richter et al. "Playing for Data: Ground Truth from Computer Games". In: *European Conference on Computer Vision (ECCV)*. Ed. by Bastian Leibe et al. Vol. 9906. LNCS. Springer International Publishing, 2016, pp. 102–118.