

Kabal - Yolo to traffic light detection

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1. Introduction

2. Methodological process

- ▶ Yolo to traffic light detection
- ▶ Theoretical application:
 - ▶ Apply the theory study algorithm, but not coding
 - ▶ Study and understand the Yolo V3
 - ▶ 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:
 - ▶ Train Yolo to ligh's game detection
 - ▶ If possible, do the car have action
- ▶ Document the project, relating theory to practice.

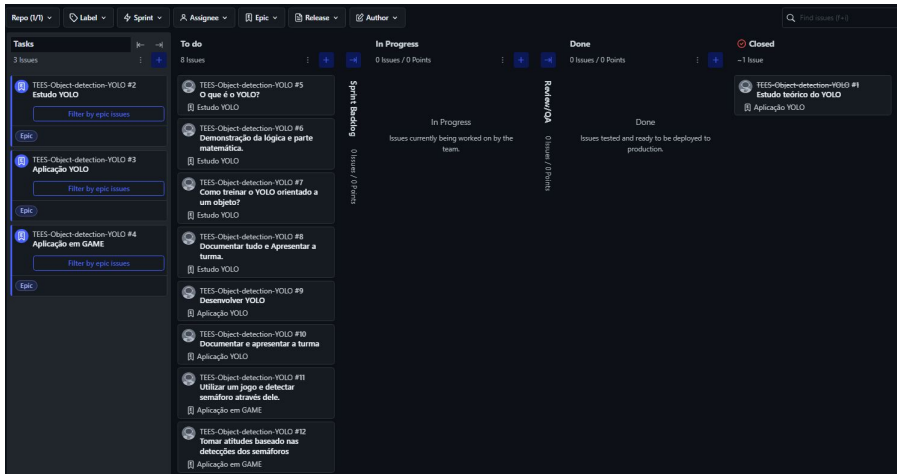
- ▶ Application in a game. GTA V or Forza



1. Introduction

2. Methodological process

► Kanban using Zenhub



The screenshot displays a Zenhub Kanban board for the repository 'TEES-Object-detection-YOLO'. The board is organized into four main columns: 'To do', 'In Progress', 'Done', and 'Closed'. Each column has a header with a plus icon and a minus icon, and a sub-header indicating the number of issues and points. The 'To do' column contains 8 issues, 'In Progress' contains 0 issues, 'Done' contains 0 issues, and 'Closed' contains 1 issue. The 'To do' column is further divided into three sub-columns: 'Sprint Backlog', 'In Progress', and 'Done'. The 'Sprint Backlog' sub-column contains 8 issues, 'In Progress' contains 0 issues, and 'Done' contains 0 issues. The 'Closed' column contains 1 issue. The 'To do' column is further divided into three sub-columns: 'Sprint Backlog', 'In Progress', and 'Done'. The 'Sprint Backlog' sub-column contains 8 issues, 'In Progress' contains 0 issues, and 'Done' contains 0 issues. The 'Closed' column contains 1 issue.

Repo (1/1) | **Label** | **Sprint** | **Assignee** | **Epic** | **Release** | **Author** | **Find issues (1+)**

Tasks | 3 Issues | **Filter by epic issues** | **Epic**

TEES-Object-detection-YOLO #2
Estudo YOLO

TEES-Object-detection-YOLO #3
Aplicação YOLO

TEES-Object-detection-YOLO #4
Aplicação em GAME

To do | 8 Issues | **Sprint Backlog** | 0 Issues / 0 Points | **In Progress** | 0 Issues / 0 Points | **Done** | 0 Issues / 0 Points | **Closed** | -1 Issue

TEES-Object-detection-YOLO #5
O que é o YOLO?
Estudo YOLO

TEES-Object-detection-YOLO #6
Demonstração da lógica e parte matemática.
Estudo YOLO

TEES-Object-detection-YOLO #7
Como treinar o YOLO orientado a um objeto?
Estudo YOLO

TEES-Object-detection-YOLO #8
Documentar tudo e Apresentar a turma.
Estudo YOLO

TEES-Object-detection-YOLO #9
Desenvolver YOLO
Aplicação YOLO

TEES-Object-detection-YOLO #10
Documentar e apresentar a turma
Aplicação YOLO

TEES-Object-detection-YOLO #11
Utilizar um jogo e detectar semáforo através dele.
Aplicação em GAME

TEES-Object-detection-YOLO #12
Tomar atitudes baseado nas detecções dos semáforos
Aplicação em GAME

TEES-Object-detection-YOLO #1
Estudo teórico do YOLO
Aplicação YOLO

► Tools in project



- [1] *CARLA Simulator*. <http://carla.org>. Apr. 2020.
- [2] *Git Documentation*. <https://git-scm.com/doc>. Sept. 2019.
- [3] *Python Documentation*. <https://docs.python.org/3/>. Sept. 2019.
- [4] *Numpy Documentation*. <https://docs.scipy.org/doc/numpy/reference/>. Sept. 2019.
- [5] *Pandas Documentation*. <https://pandas.pydata.org/pandas-docs/stable/>. Sept. 2019.
- [6] Kathryn D Scopatz Anthony; Huff. "Effective Computation in Physics". In: *O'Reilly Media* 351 (Apr. 2015).