Team 21 Milestone2 Review Meeting Summary

Meeting Introduction

Meeting Topic: Review Meeting of the work accomplished during the Milestone 2 of Team 21

Meeting Date: 2024/06/06 22:00-22:30

Meeting Venue: Online Tencent

Meeting Participants:

Project Team Member: Li Jinhao, Wang Zijian, Guo Ziyu, Guo Xiaojie

Reviewer: Zhu Leyi, Shu He, Yang Tengchao, Tian Xinyang, Zhang Zihan, Yin Peiyuan, Liu Yuanzhe, Li Jinlin

Meeting Content

1. Milestone Summary and Feedback: Summarize the completion status of this milestone meeting and develop a plan for the next stage. Adjust the plan based on the suggestions and issues raised by the participants, and respond to the resolution of the issues raised by the previous milestone participants. At present, our work is consistent with the milestone plan.

2. Algorithm Introduction: Introduced the advantages and features of the YOLOv8 model used, compared it with previous versions, and briefly introduced its principles.

3. Data Processing

   • Format modification: Change XML to txt for model training

   • Data augmentation: Using rotation, flipping, cropping, Gaussian blur, Gaussian noise, RGB channel adjustment, brightness adjustment, etc., 1-4 images were generalized for each image

4. Code and Result Display: Showcased some code related to training models and briefly introduced how to conduct training. Subsequently, the results of multiple training sessions and the comparison between the results were presented.

Questions and Suggestions

Q: My question is, may I ask which part of the loss function you just introduced for selecting and modifying is so diverse? Is there any particular emphasis or basis for your selection?

A: This part is quite mystical, just try each option once to find the best one tested inside. To find the best results, one can only come up with experiments. Because in fact, we have asked for information or GPT, and so on. He basically can't find it, and the conclusion he comes up with is to experiment, which produces better results.

Q:Hello, I would like to ask. The integration with those relevant departments just mentioned. Are there any detailed plans or arrangements??

A: Because what you're talking about is the part about planning for the future outlook. Because our project is participating in an outsourcing competition. His specific requirements. The requirements in the competition are only limited to the initial theoretical stage, so there is no requirement to combine them with actual departments. In the future, an interface design can be carried out for specific relevant departments.

Q: Hello, is your project only available on the web side? Are you considering a release version?

A: Our project so far refers to. The deployment is only used on the web side. Because I think it's more convenient to display on the web and more intuitive. And it's also quite practical. I have no plans to package it into a release version yet. Currently, it can only be used on the web side. Using it on the web side is just one thing. A convenient display effect. Our project's focus is still on model training.

Q: I would like to ask. You said your focus is on model training, so you use the YOLOv8 model. What are the advantages compared to other models?

A: Firstly, our project is related to image recognition, so we have decided to use this model. Then, we will explain why we are using YOLOv8, as it is the latest version. In the early stage of this meeting, we also discussed its differences and advantages compared to YOLOV5 or YOLOv7. And the YOLOv8 model has a good balance between accuracy and speed. Compared to other models, it has better performance under the same computing resources. Detection accuracy. And its community support is quite extensive. It is relatively convenient to obtain pre trained models and similar things.

Tasks for the Next Phase

1. Project Summary and Improvement

2. Writing and Reflection on Documents

3. Overall testing of the project

We will make necessary adjustments based on the issues and suggestions raised in this meeting to ensure the high-quality completion of the project development.

Meeting Link

录制文件 (tencent.com)

Signatures