



A robust approach for empowering beer business analysis

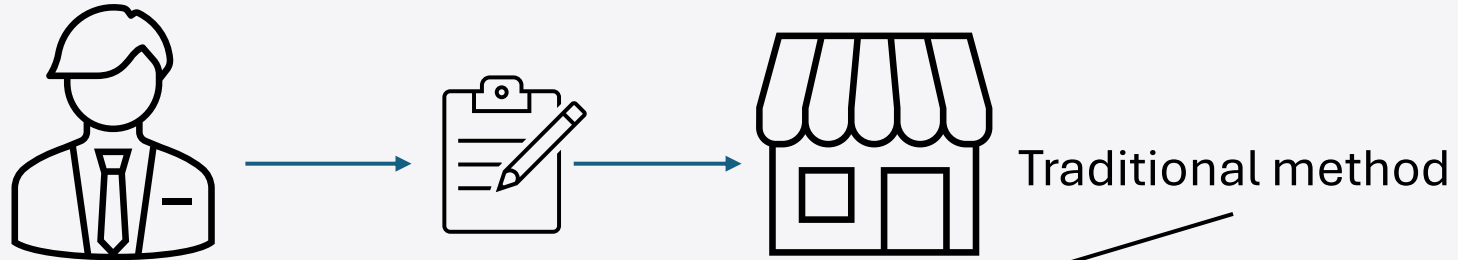
AIO_369

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1. Motivation



Our approach



We use AI model for all analysis tasks.

2. Our approach

YOLOv10 and Gemini are the backbone of our method. The Figure 1 outlines our process where an image is inputted into a system, YOLO detects objects and their bounding boxes, and this information is passed to Gemini. Gemini then analyzes the context, emotions, and actions to generate a descriptive sentence summarizing the image.

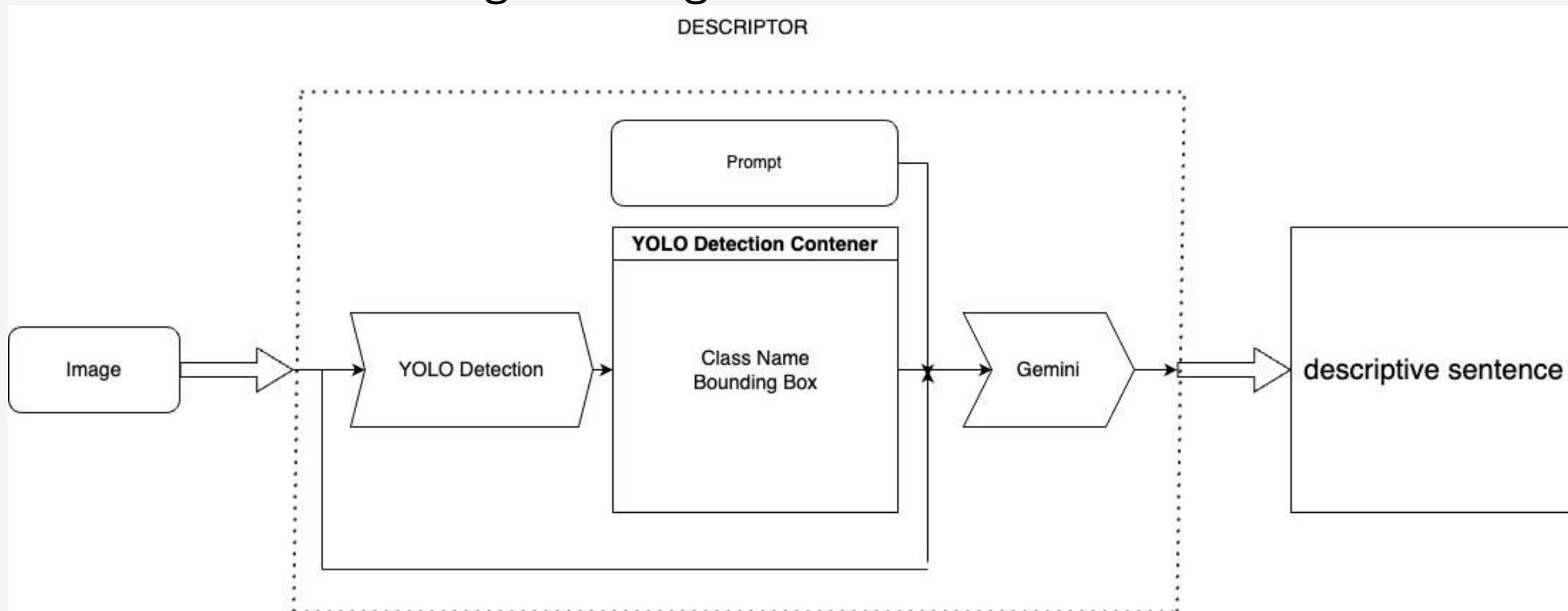


Figure 1. The pipeline for our proposed method

2. Our approach

To train YOLOv10, we conduct label on beer carpet, human face, brand staff, beer can, beer bottle, billboard, poster, brand logo




Figure 2. Result of pretrained YOLOv10 for detecting object

2. Our approach

We create a user-friendly app for use

Fill Folder Path
F:\AngleHack_Heineken\UI-AngelH\Data



BZ1A0408.jpg

Analysis

Previous

Next

Show Overlay

Statistics

Person: 4
Tiger Bottled Beer: 1
Tiger Beer: 1
Tiger Logo: 1

Competitor

Competitor: Tiger

Description

Here is the result after analysis:

- Beer Brands:** The image shows two beer brands: Tiger Bottled Beer and Tiger Beer.
- Brand Presence:** The Tiger brand is prominently displayed throughout the image. There are multiple crates of Tiger Beer in the background, visible on the left side of the image. Two men are holding Tiger Beer bottles in their hands, which are the focal point of the image. Additionally, a Tiger logo is visible on a nearby crate. This suggests that Tiger is the more dominant brand due to its repeated presence and emphasis in the image.
- People and Attitudes:** The image shows two men, both of whom are smiling and holding Tiger Beer bottles. One man is gesturing with his thumb in a positive way, while the other is looking directly at the camera with a relaxed expression. Their actions suggest a convivial atmosphere and a positive attitude toward the brand.
- Setting Details:** The image appears to be taken inside a bar or restaurant, likely at a promotional event or gathering. There are tables and chairs visible, along with empty plates and a beer glass, indicating that the scene is set for a meal or drinks. The background suggests the presence of other people, further supporting the impression of a social gathering. The image does not provide clear details about the weather or time of day.

Figure 3. UI for our approach

3. Result

Our approach solve almost the provided challenges, include:

- Business Challenge 2: Advertising Material Detection
- Business Challenge 3: Event Success Evaluation
- Business Challenge 4: Monitoring Marketing Staff
- Business Challenge 5: Evaluating Store Presence
- Context Identification
- Identifying Competitors' Logos

4. Our difficulty

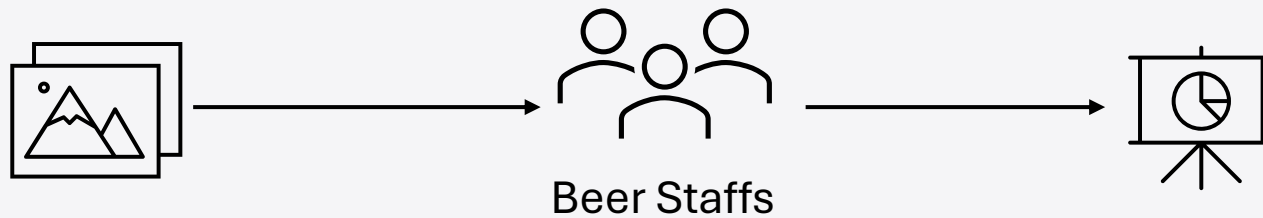
During our work, we face several challenges:

1. Imbalanced labels in the training dataset.
2. The need for a suitable LLM model to enhance the task of context review.
3. Significant time spent configuring effective prompts for high performance.
4. Lack of ergonomic chairs, which cannot be adjusted properly, affecting our comfort and spine health. D:



5. Our future

- No need for the arrival of brand staff



- Use 1 VQA model for all tasks: object detecting, context reviews and context analysis

Thank you for listening

We are AIO_369