

# DIGITAL EMPOWERMENT

HEINEKEN VIETNAM

# AGENDA

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Team introduction

Input/Output introduction

Solution pipeline

Models' information and evaluation

Development path

Q&A

# OUR TEAM



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I.

# INPUT/OUTPUT INTRODUCTION

# INPUT - OUTPUT

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- Input: an image
- Output:
  - Number of people, their emotions and the dominant emotion (problem no. 3)
  - Locate promotion girls, number of them, check whether it>2 (problem no. 4)
  - Locate printed advertisings: ice boxes, ice buckets, bottles, cans, refrigerators, billboards, standees, parasols (problem no. 2)

# INPUT - OUTPUT

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- On problem no. 4:
  - All detected promotion girls are counted, regardless of their companies
  - Female and standing individuals are taken into consideration

# INPUT - OUTPUT

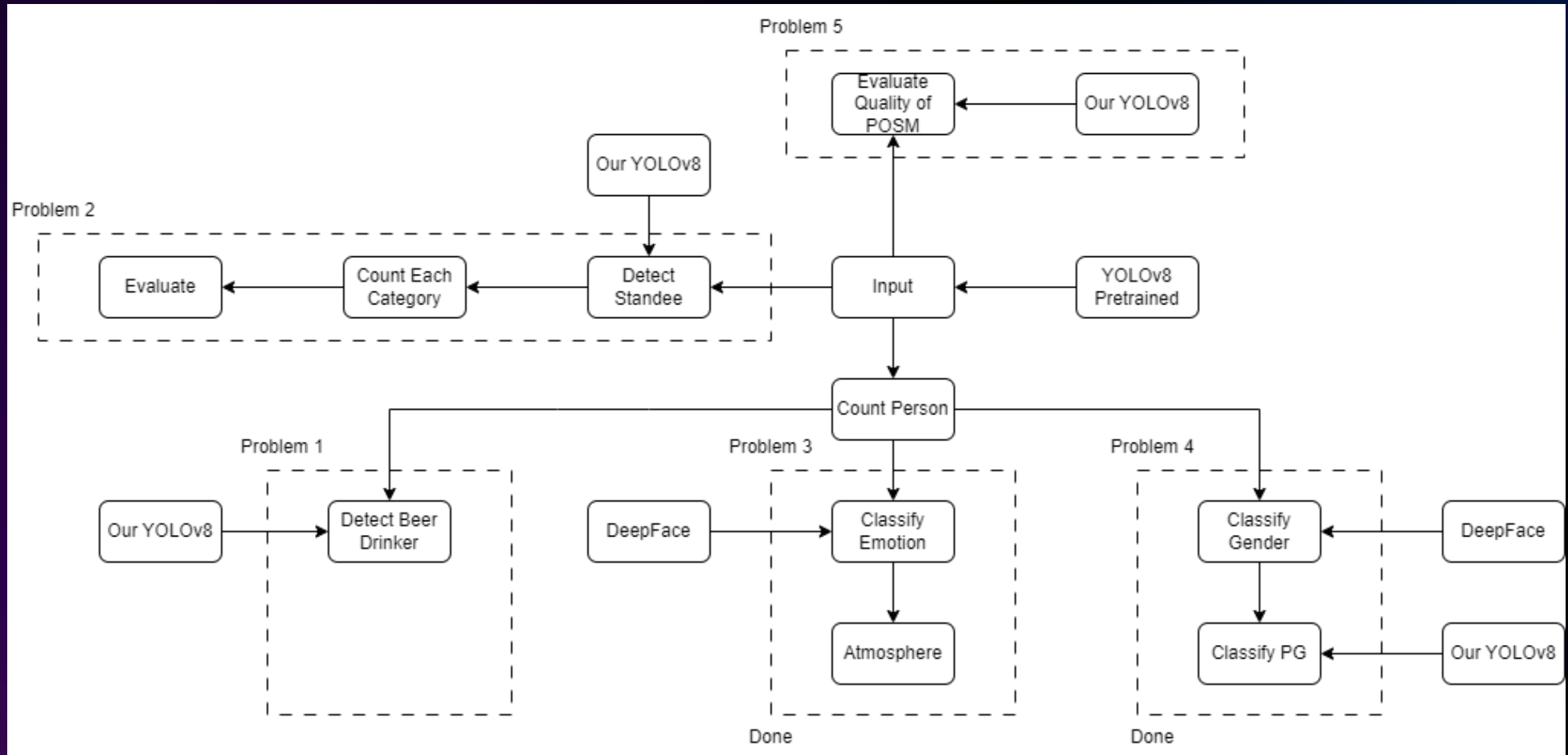
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- On problem no. 2:
  - Printed products that are of these companies below are chosen
  - Heineken, Tiger, Bia Viet, Larue, Bivina, Edelweiss, Strongbow

## II. SOLUTION PIPELINE

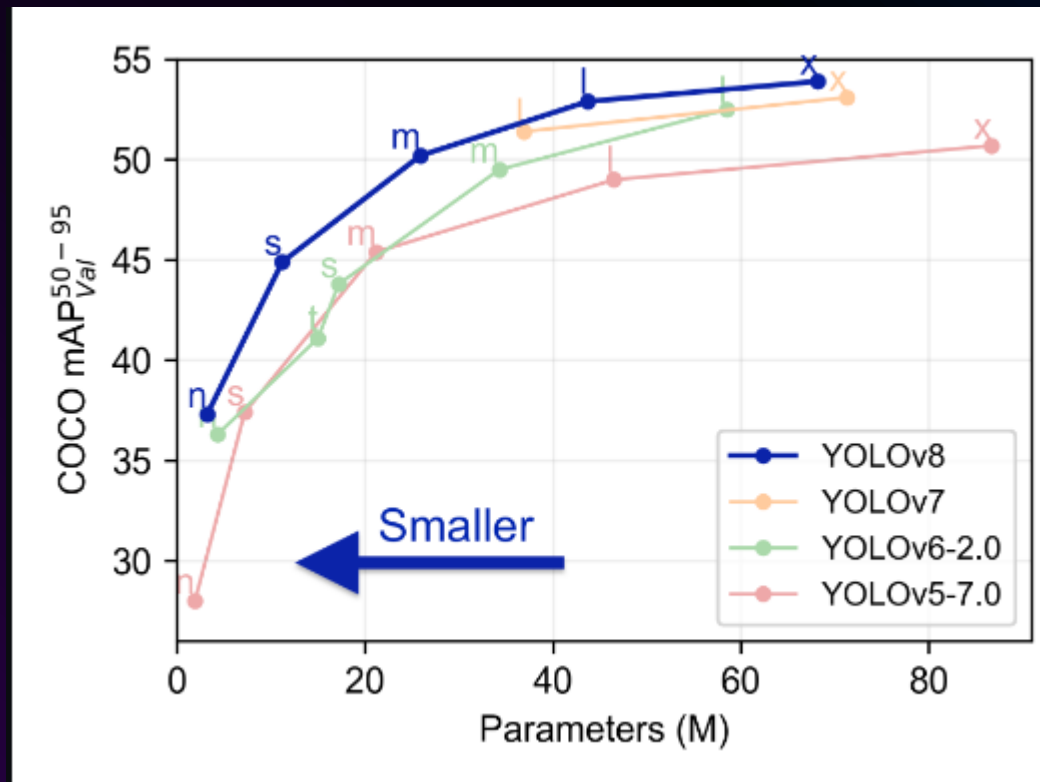


# SOLUTION PIPELINE



# MODELS' INFORMATION

- Our solution is entirely YOLOv8-based



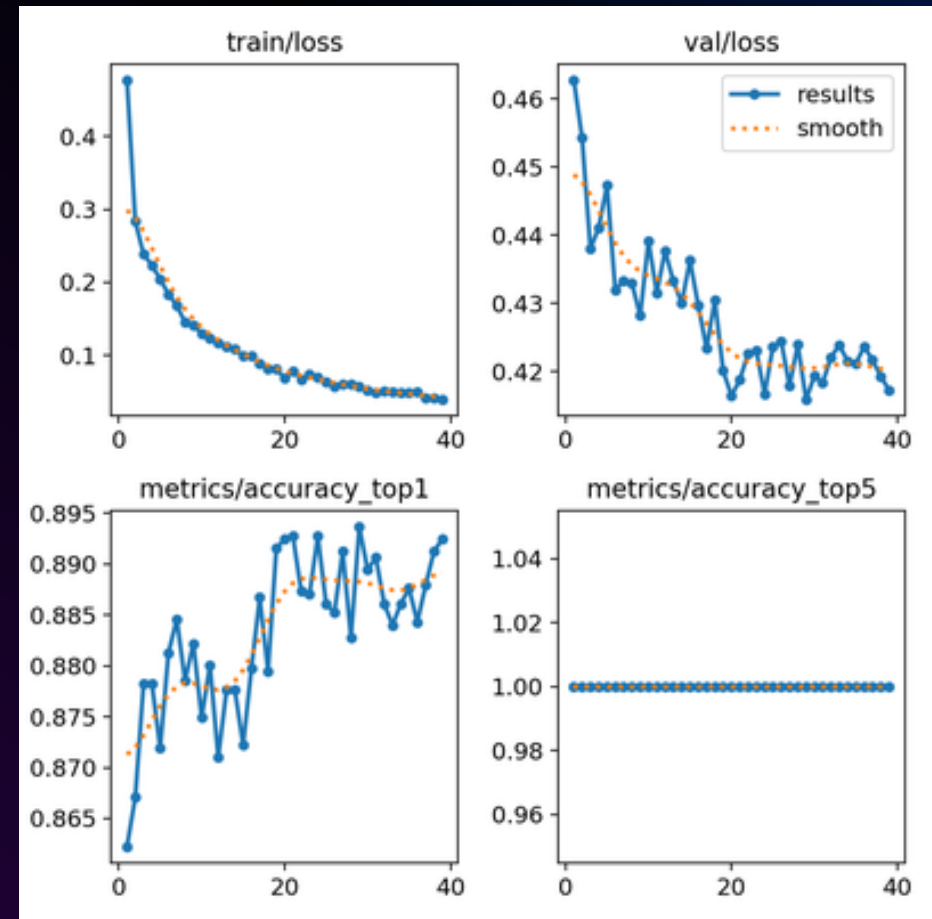
# MODELS' INFORMATION

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- For face detection in problem no. 3, we utilize a pretrained YOLOv8m on WIDERFace, which is available in DeepFace framework

# MODELS' INFORMATION

- For detecting promotion girls, we fine-tune YOLOv8m on ... to check whether a person is sitting or standing



# DEVELOPMENT PATH

# DEVELOPMENT PATH

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- Spend more time labelling dataset provided by the organizers
- Find a method of effective and automative data labelling instead of doing it manually
- Find a method capable of detecting small promotional materials (printed advertisings)

Q & A