

SpotOn

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Progress #1



Agenda

- Feedback from the proposal presentation
- Progress - Person detection model experimental
- What's next

Feedback

Aj.Chawanat

- Privacy when deploying
- Stakeholder
- How will we handle it when the target changes the clothes?

Aj.Kittipol

- Concern about whether is it possible

Aj.Chawanat

- Privacy when deploying
- Stakeholder
- How will we handle it when the target changes the clothes?



Done



Need more research



No idea

Aj.Kittipol

- Concern about whether it is possible

Privacy when deploying



4. **MTMMC Dataset Providers/Owners:** The creators and distributors of the Multi-Target Multi-Camera (MTMMC) dataset used for training and evaluating the AI components of this project (4.5.3).

Stakeholder

17

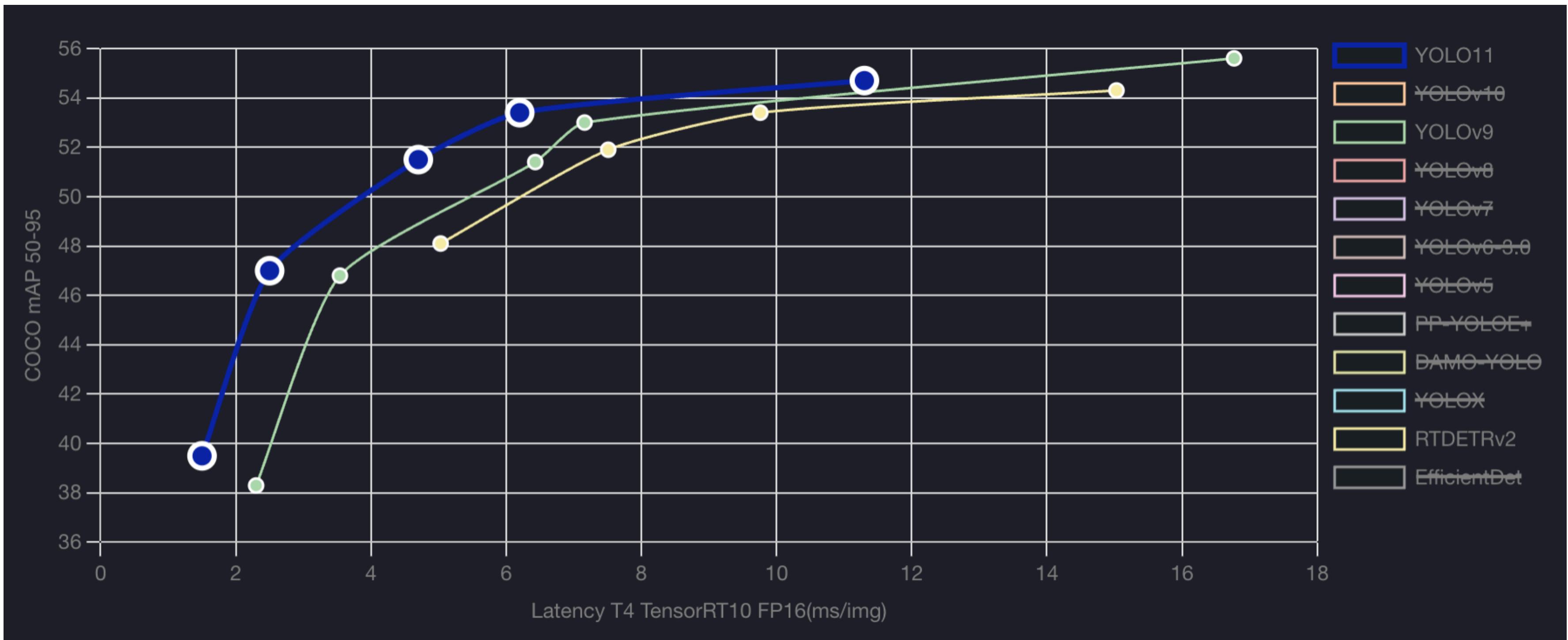
- **Stake:** They have an interest in ensuring the dataset is used responsibly and ethically, strictly according to the terms and conditions outlined in the usage agreement signed by the project team. This includes preventing misuse or unauthorized redistribution of the data.
- **Project Consideration:** The project must adhere to all stipulations in the dataset usage license. Compliance will be documented, and proper attribution/citation will be provided in all relevant project outputs.

Progress

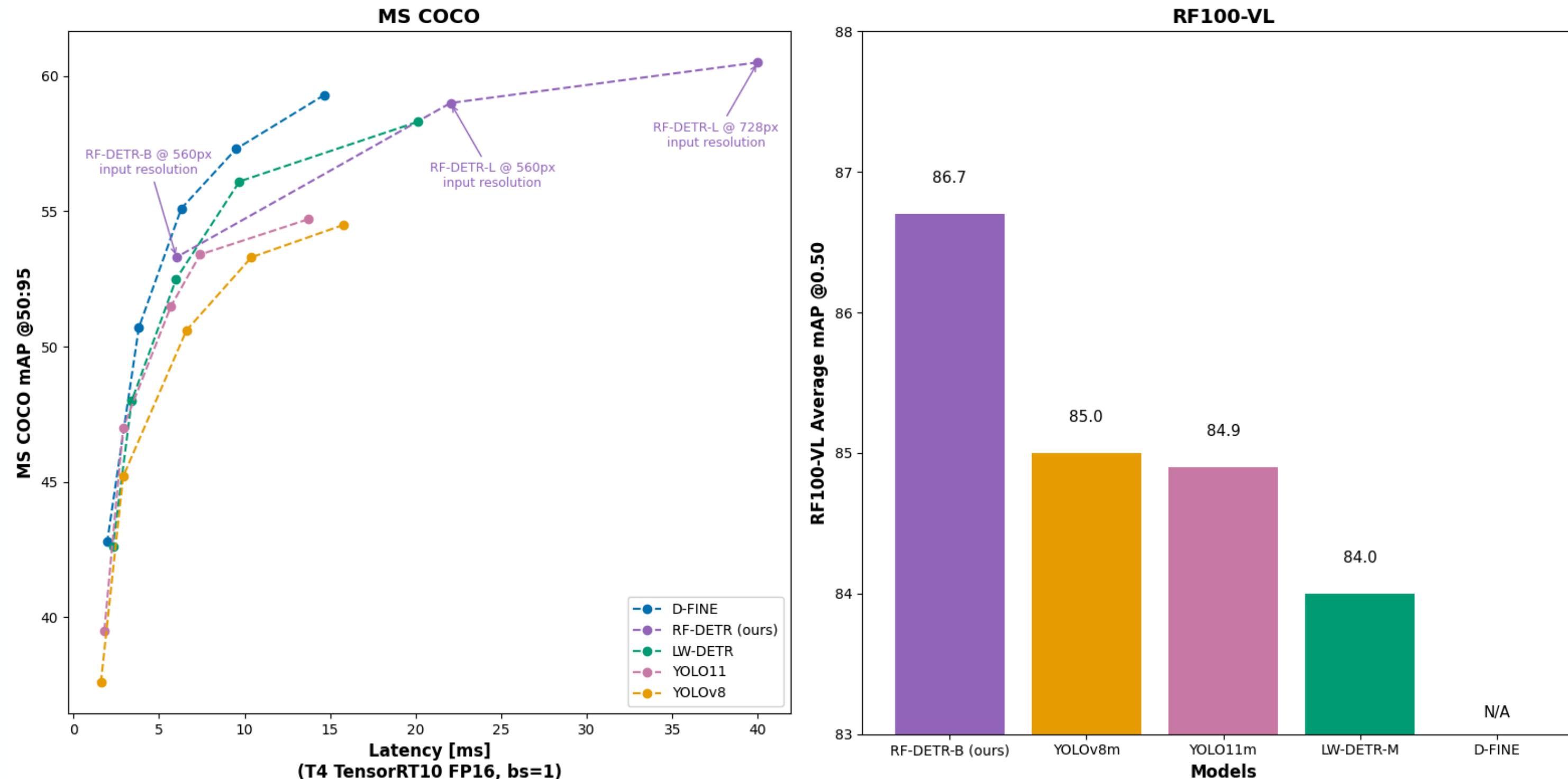
Model experimental

- **One stage detector** (Bounding boxes / Classes in a single pass)
 - yolov1l
 - yolov1lx
 - yolov9e
- **Transformer based** (Self-attention mechanisms)
 - rtdetr-x
 - rfdeatr-l
- **Two stage detector** (Rols → Bounding boxes / Classes)
 - fasterrcnn_resnet50_fpn

Model experimental

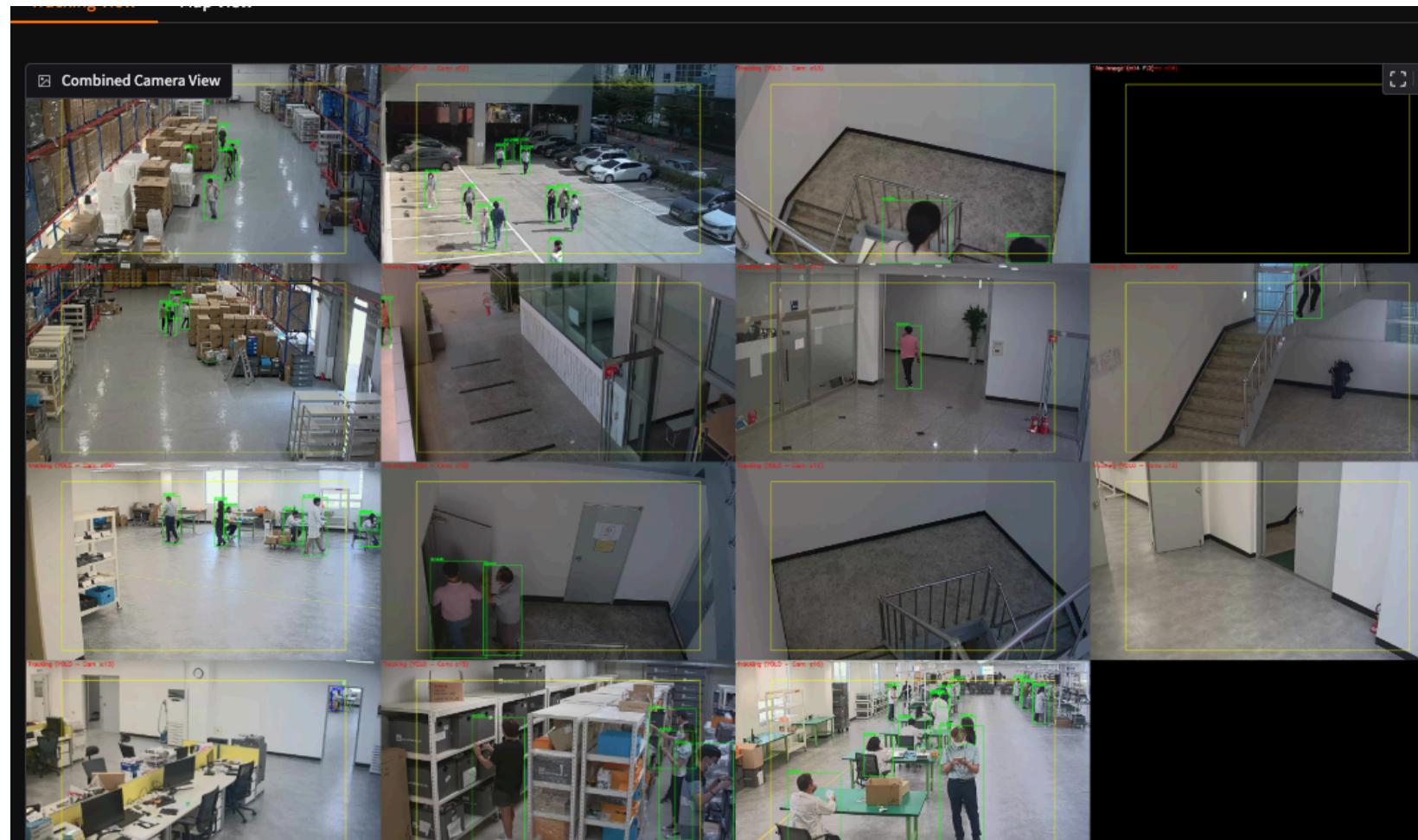


Model experimental



Model experimental

Factory



People (Model Mode Only)

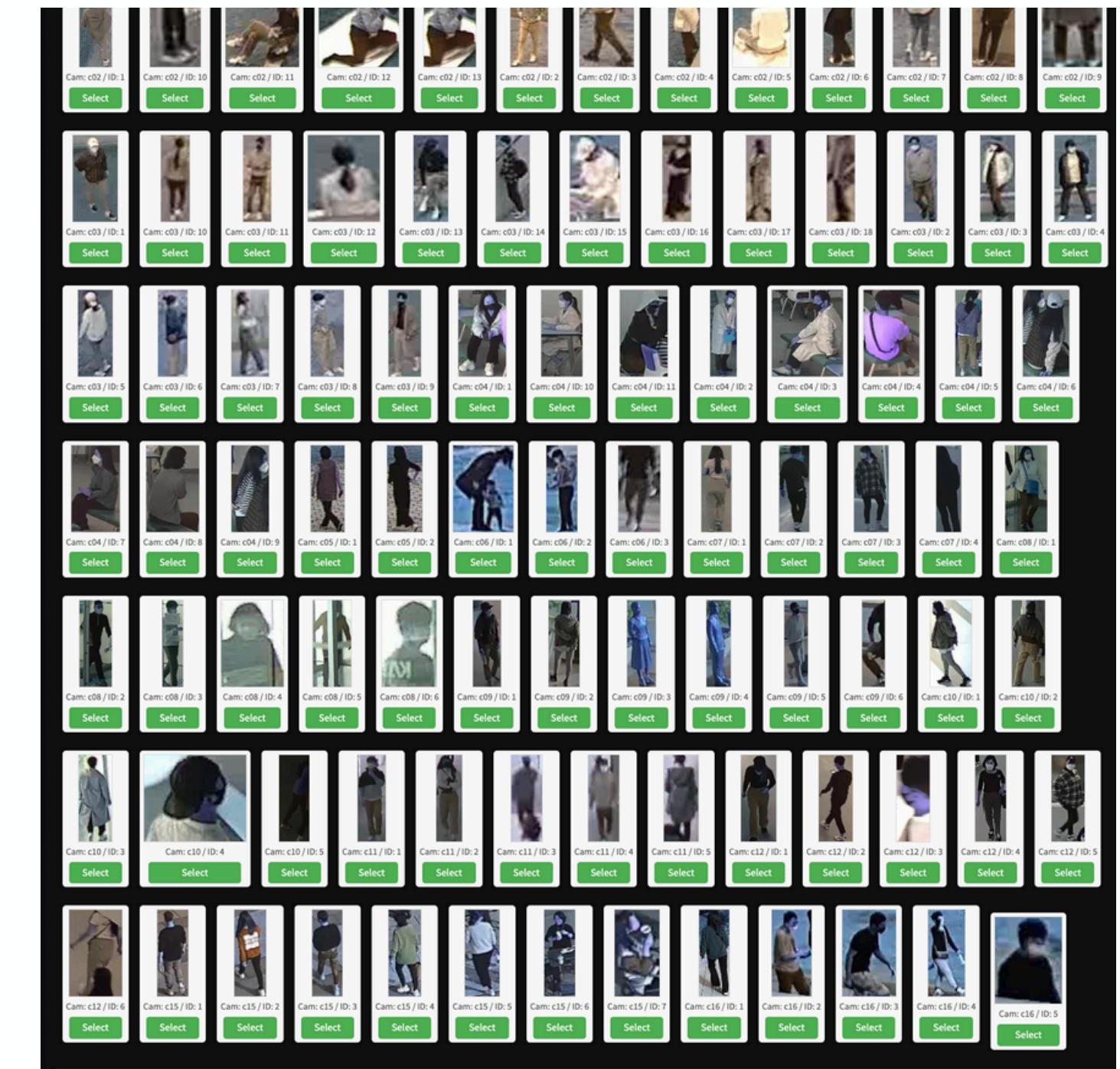
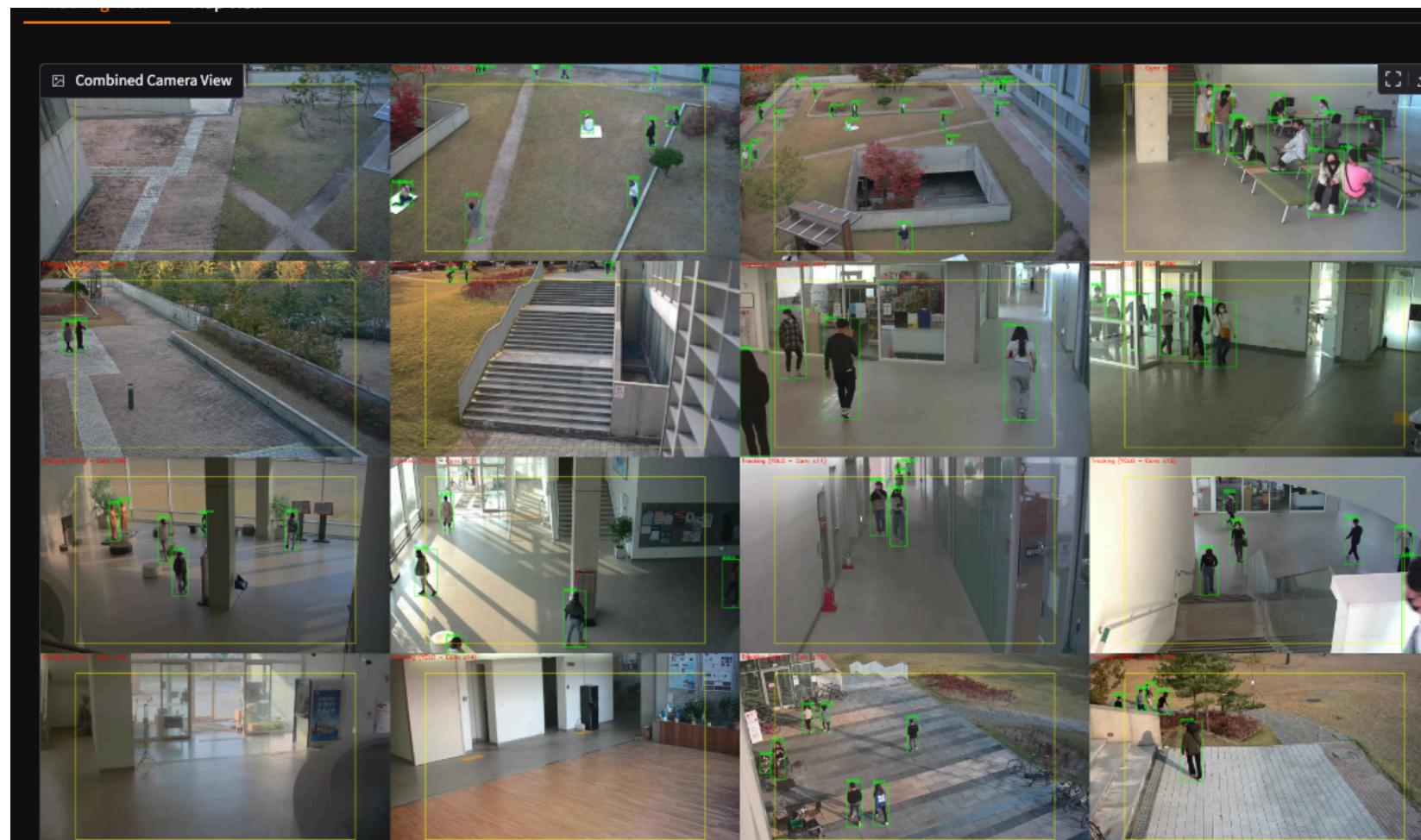
Cam: c01 / ID: 2	Cam: c01 / ID: 3	Cam: c01 / ID: 4	Cam: c01 / ID: 5	Cam: c01 / ID: 6	Cam: c01 / ID: 7	Cam: c02 / ID: 1	Cam: c02 / ID: 10	Cam: c02 / ID: 11	Cam: c02 / ID: 12	Cam: c02 / ID: 2	Cam: c02 / ID: 3	Cam: c02 / ID: 4
Cam: c02 / ID: 5	Cam: c02 / ID: 6	Cam: c02 / ID: 7	Cam: c02 / ID: 8	Cam: c02 / ID: 9	Cam: c03 / ID: 1	Cam: c03 / ID: 2	Cam: c05 / ID: 1	Cam: c05 / ID: 2	Cam: c05 / ID: 3	Cam: c05 / ID: 4	Cam: c05 / ID: 5	Cam: c05 / ID: 6
Cam: c07 / ID: 1	Cam: c08 / ID: 1	Cam: c09 / ID: 1	Cam: c09 / ID: 2	Cam: c09 / ID: 3	Cam: c09 / ID: 4	Cam: c09 / ID: 5	Cam: c09 / ID: 6	Cam: c09 / ID: 7	Cam: c10 / ID: 1	Cam: c10 / ID: 2	Cam: c10 / ID: 3	Cam: c10 / ID: 4
Cam: c15 / ID: 2	Cam: c15 / ID: 3	Cam: c15 / ID: 4	Cam: c16 / ID: 1	Cam: c16 / ID: 10	Cam: c16 / ID: 11	Cam: c16 / ID: 12	Cam: c16 / ID: 13	Cam: c16 / ID: 2	Cam: c16 / ID: 3	Cam: c16 / ID: 4	Cam: c16 / ID: 5	Cam: c16 / ID: 6
Cam: c16 / ID: 7	Cam: c16 / ID: 8	Cam: c16 / ID: 9										

to frame 1

Use via API • Built with Gradio • Settings

Model experimental

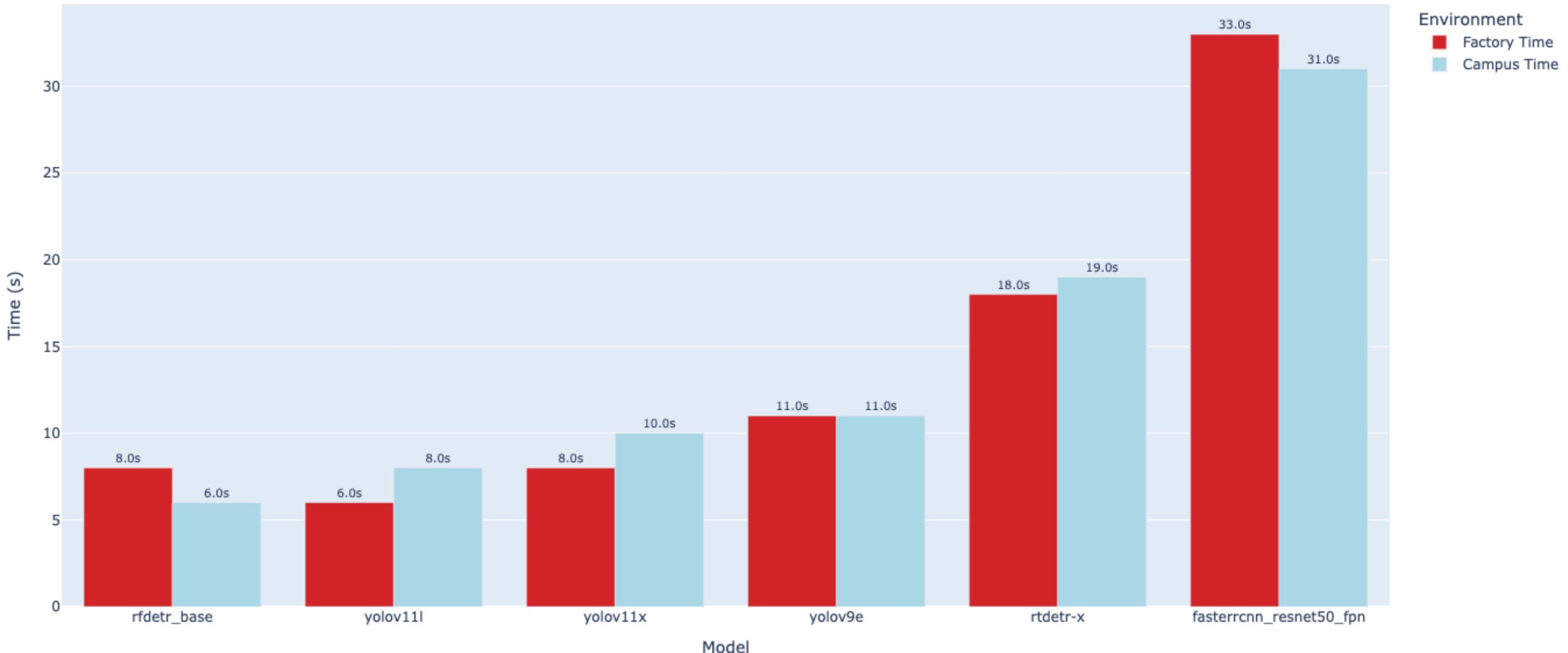
Campus



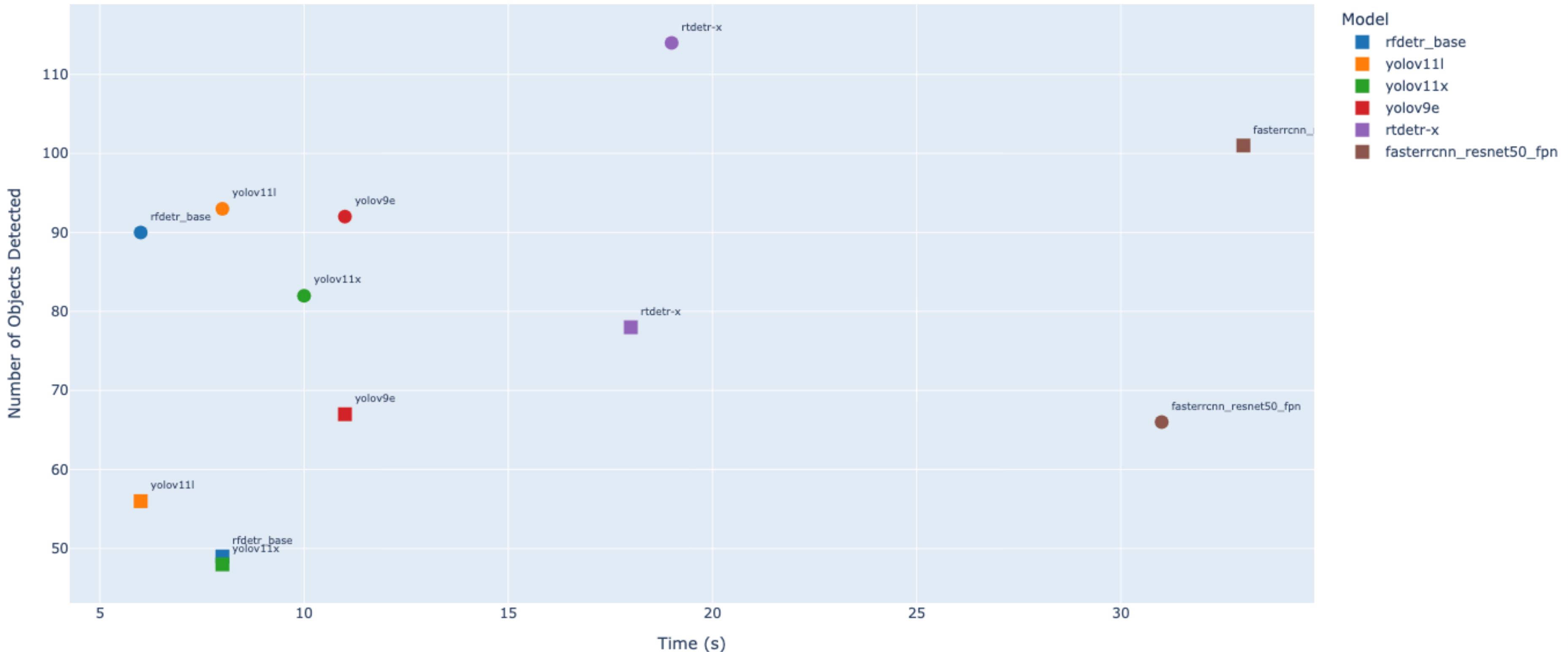
Model experimental

yolov11x (Factory)	yolov11l (Factory)	yolov9e (Factory)	rtdetr-x (Factory)	fasterrcnn_resnet
Time: ~8 s	Time: ~6 s	Time: ~11 s	Time: ~18s	50_fpn (Factory)
Detected: 48	Detected: 56	Detected: 67	Detected: 78	Time: ~33 s
				Detected: 101
yolov11x (Campus)	yolov11x (Campus)	yolov9e (Campus)	rtdetr-x (Campus)	fasterrcnn_resnet5
Time: ~10 s	Time: ~10 s	Time: ~11 s	Time: ~19s	0_fpn (Campus)
Detected: 82	Detected: 82	Detected: 92	Detected: 114	Time: ~31 s
				Detected: 66

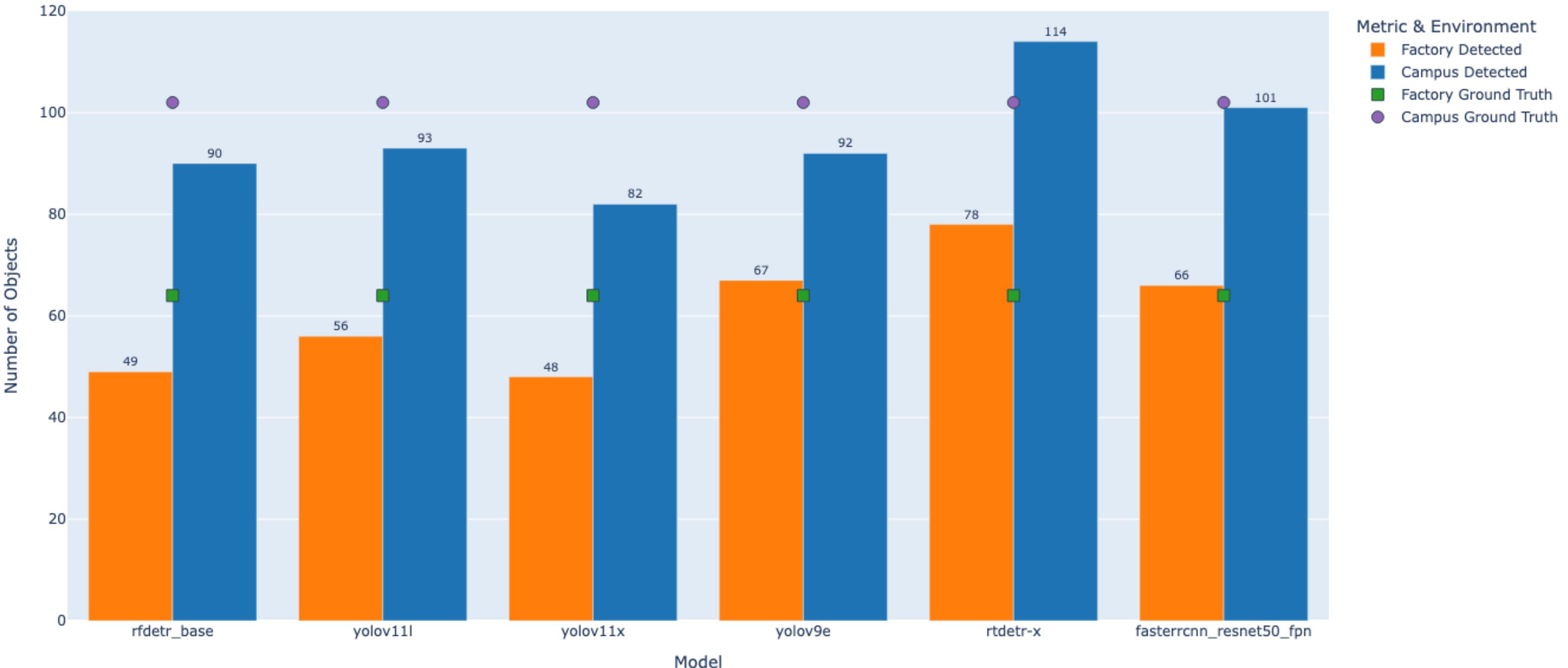
Processing Time



Time vs. Detected Objects by Model and Environment



Detected Objects vs. Ground Truth



What's next

- More experimental?
- Start training the detection model
- Start applying Re-Identification
 - Reduce the AI component risk
- Start developing the backend
 - Reduce the operational risk