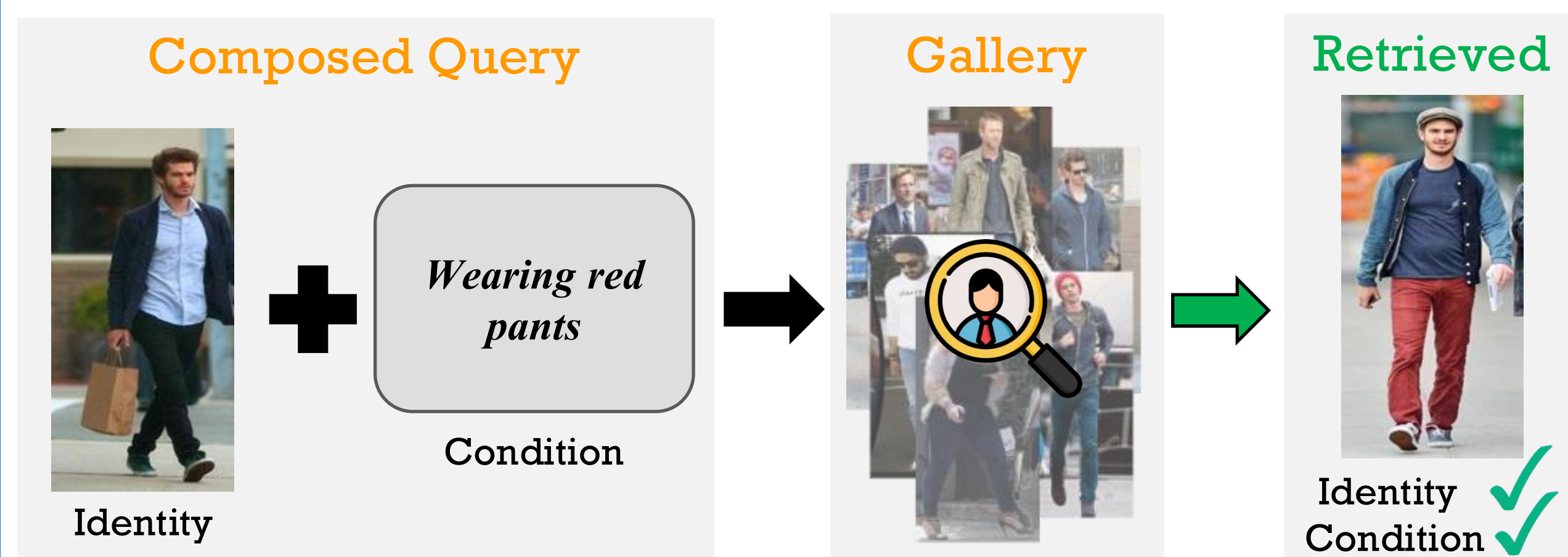


New Task

Motivation

- Traditional/Clothes-changing Re-Identification (CC-ReID):
Query Image → Same Identity
 - Multimodal Re-Identification:
Query Image + Full Text Description → Same Identity
- Real users often search with **short conditional queries**.

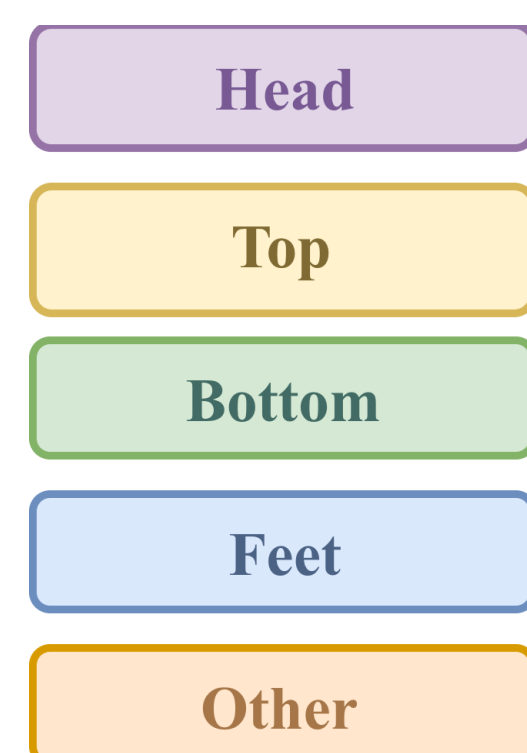
Composite-Attribute Person Re-Identification (CA-ReID)



CA-ReID

Condition Attributes

- Ground conditions to body regions.
- Provide **fine-grain attribute supervision**.



Easy

with *black long hair*, a *white sweater*, *red pants with white stripes*, *white sneakers* and *black bag*.

Medium

with a *white sweater*, and *black bag*.

Hard

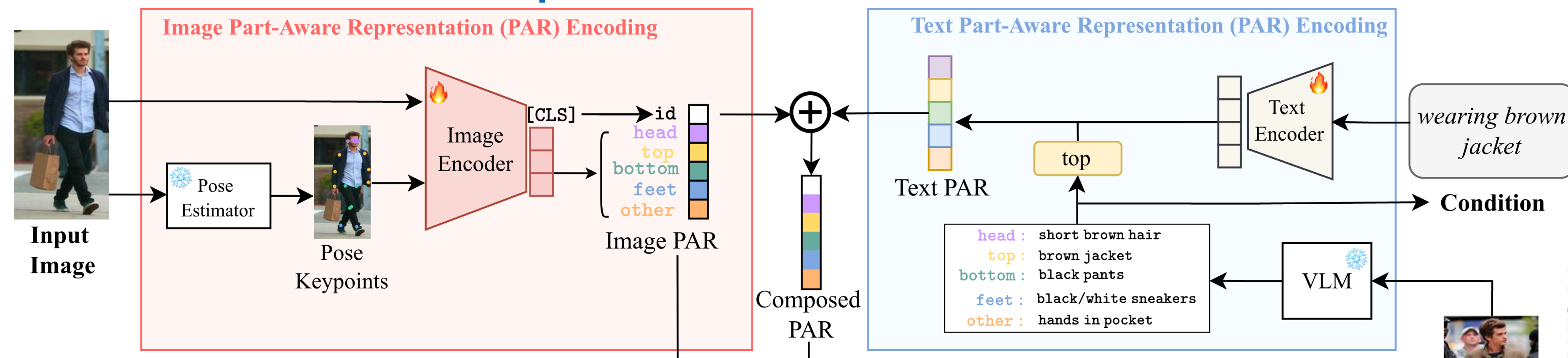
with a *black bag*.

Text Query Difficulty

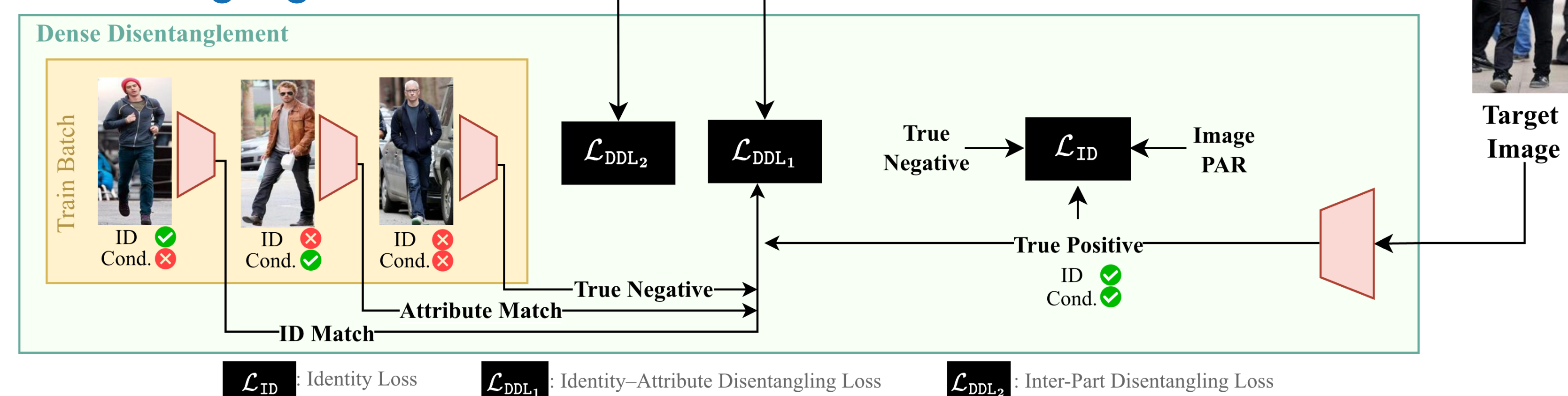
- Vary **query ambiguity** from full description to single keyword.
- Simulates **natural search refinement**.

Proposed Method

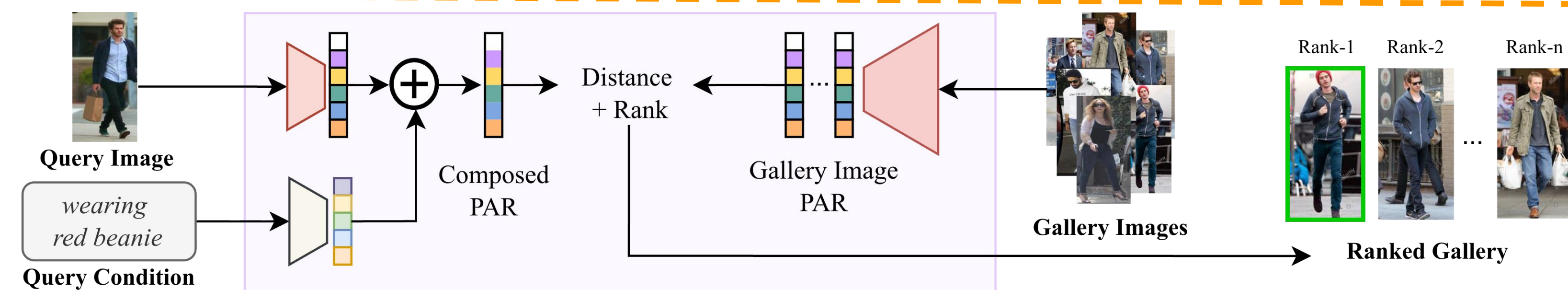
Pose-Guided Part Aware Representations



Dense Disentangling Loss



Inference



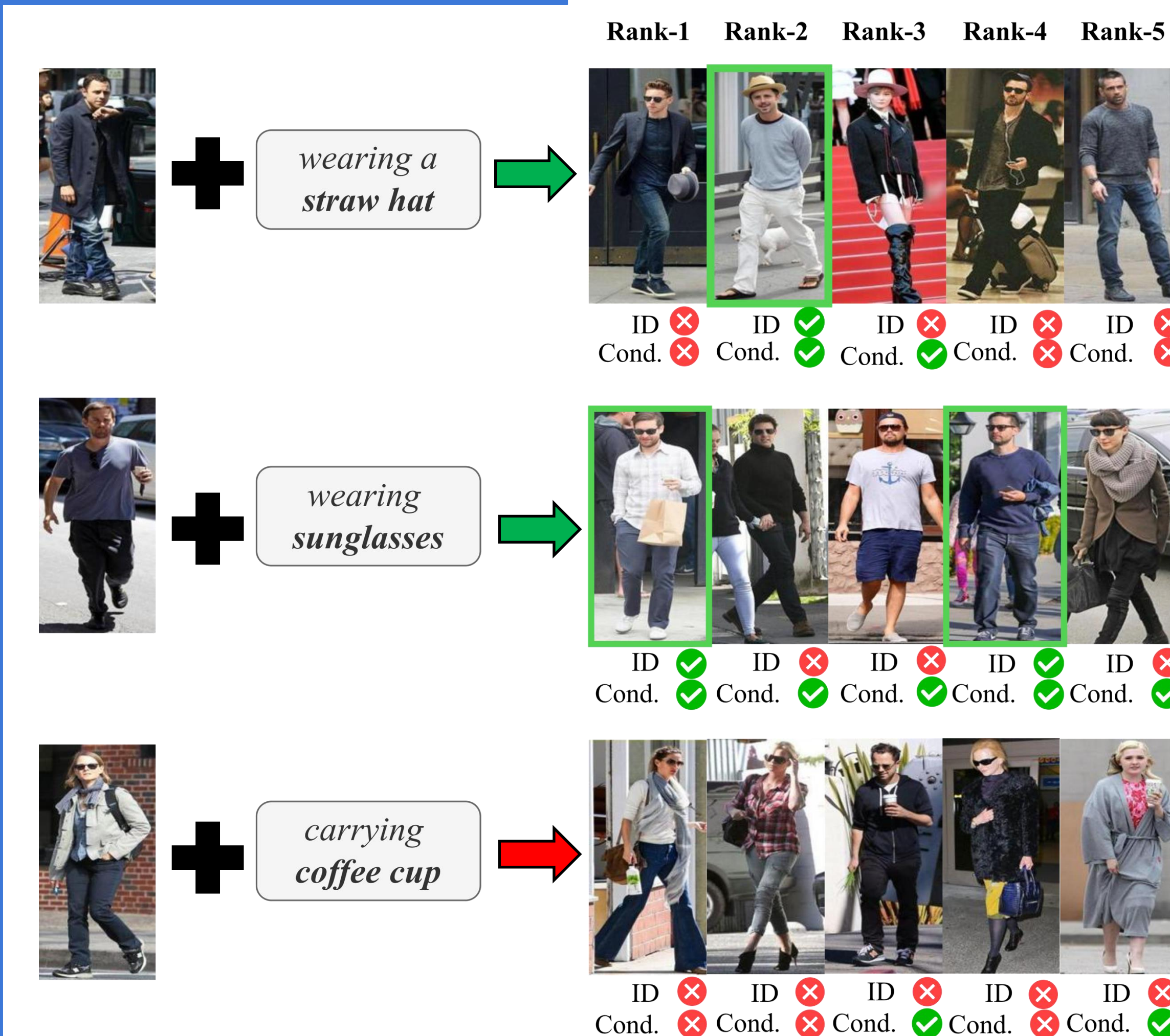
Main Results

Method	Query	Celeb-ReID-L			COCAS+Real2		
		R@1	R@5	mAP	R@1	R@5	mAP
DIFFER *	E	23.6	25.2	12.5	31.6	39.2	14.9
	H	81.8	95.6	20.8	82.7	93.5	36.4
Inst-ReID	M	74.0	81.8	19.0	51.8	78.2	17.9
	H	41.6	71.0	14.7	44.0	67.9	19.9
CA-ReID Ours	E	83.1	97.8	24.5	83.9	94.7	38.3
	H	78.9	86.2	23.3	55.1	82.4	21.2
		58.6 +17.0	79.4	20.4 +5.7	50.4 +6.4	74.2	21.3 +1.4

E / M / H denote Easy, Medium, Hard query settings. *Image-only ReID.

Method	Venue	LTCC		PRCC	
		Top-1	mAP	Top-1	mAP
CAL	CVPR '22	55.2	55.8	40.1	18.0
AIM	CVPR '23	57.9	58.3	40.6	19.1
LDF	ACM '23	58.4	58.6	32.9	15.4
3DInv	ICCV '23	40.9	18.9	56.5	57.2
CCEA	CVPR '23	45.3	22.1	61.2	58.4
CLIP3D	CVPR '24	42.1	22.9	61.8	58.3
Inst-ReID	CVPR '24	66.7	46.7	54.2	52.3
DIFFER	CVPR '25	68.5	64.7	58.2	31.6
CA-ReID Ours	CVPR '26	63.8	53.7	55.2	43.4

Qualitative Examples



Ablations

Losses	Celeb-ReID-L		LTCC	
	R@1	mAP	Top-1	mAP
✓	54.7	17.2	60.2	52.3
✓	55.0	18.5	62.7	52.6
✓	56.1	20.7	63.8	53.7

Attribute	R@1	R@5	mAP
head	59.4	79.3	18.4
top	62.4	85.2	23.5
bottom	60.3	83.2	21.9
feet	58.3	80.2	21.0
accessories	55.4	76.1	19.5
belongings	58.2	77.8	19.9
context	56.2	74.1	18.4

Results on Celeb-ReID-L (Hard setting).

Takeaways

- New task: ReID with **image + text condition**.
- Pose-Guided PAR** grounds attributes to body regions.
- DDL** separates identity, attributes, and body-parts.
- Strongest gains: **CA-ReID Hard single keyword setting**.