Ground Truth

Knowledge Distillation

CLARIFY the ground truth by articulating the reasoning process

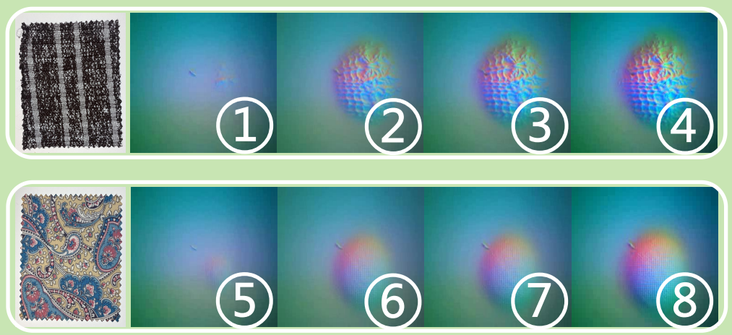
Post Hoc Reasoning Process

Teacher Model

Pairwise Comparison Output

Fabric 1:
RGB Image: Shows a lace-like structure with open spaces, indicating materials like cotton, polyester, or spandex blends known for their stretchability.
GelSight Images: At various pressures (0.00 N to 56.23 N), the texture changes slightly, maintaining its surface characteristics, suggesting good elasticity and ability to recover its shape...
Fabric 2:
RGB Image: Displays a paisley pattern typical of cotton or cotton-polyester blends, which are less stretchy.
GelSight Images: As pressure increases (0.00 N to 55.62 N), the fabric deforms significantly and retains fewer surface features, indicating less elasticity and recovery...
Conclusion: Fabric 1 has higher elasticity than Fabric 2, as it retains its shape and surface texture under pressure, whereas Fabric 2 shows more deformation and less recovery, likely due to its denser, less elastic fibers.

Multimodalities Prompt



<①- 0.00N>
, ... ,
<④ - 56.23N>

<⑤ - 0.00N>
, ... ,
<⑧ - 55.62N>

Student Model

LEARN the reasoning process

Finetuning Process

LoRA
Fine-tuning

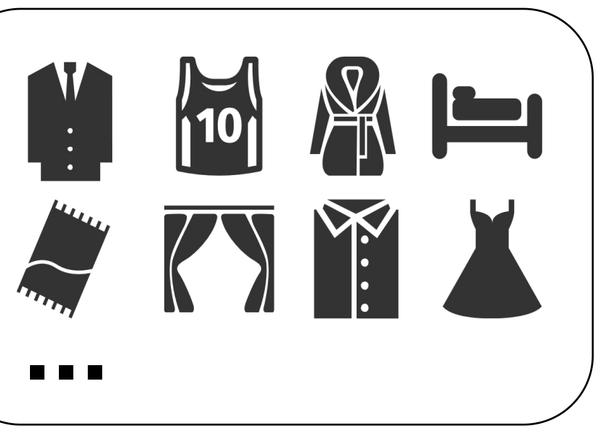
Fine-tuned Student Model

Do Ad Hoc Reasoning

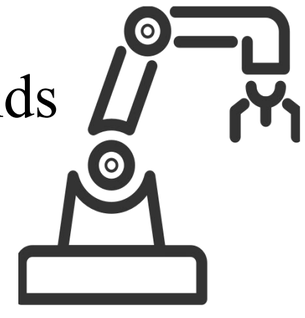
Scenario Demands Analysis

+

Elasticity Comparison
Softness Comparison
Thickness Comparison
Texture Comparison
Property Comparisons



Issue Commands



Do Fabric Selection