

Feature Distillation

Feature-Level Distillation

Matching intermediate layers outputs of Teacher and Student

Layer Matching Strategy

1:1 Matching

Teacher Layer 12 → Student Layer 6

Multiple Matching

Matching multiple layers simultaneously

Adaptive Matching

Using learnable transformations

Feature Distillation Loss

$$L_{\text{feature}} = \|\mathbf{f}_T(\mathbf{x}) - \mathbf{f}_S(\mathbf{x})\|^2$$

\mathbf{f}_T : Teacher features, \mathbf{f}_S : Student features