Concept of Representation Learning
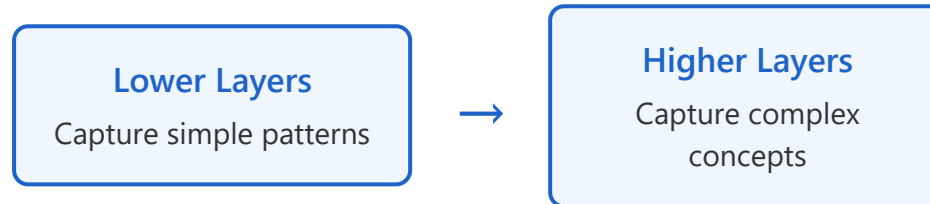
Automatically learns features from raw data instead of manual engineering

Hierarchical Representations

Lower Layers

Capture simple patterns

→

Higher Layers

Capture complex concepts

End-to-end learning: features optimized for specific task

Reduces need for domain expertise in feature design

Can discover non-obvious patterns humans might miss

Discovers multiple levels of abstraction automatically

⭐ **Foundation of Modern Deep Learning Success**