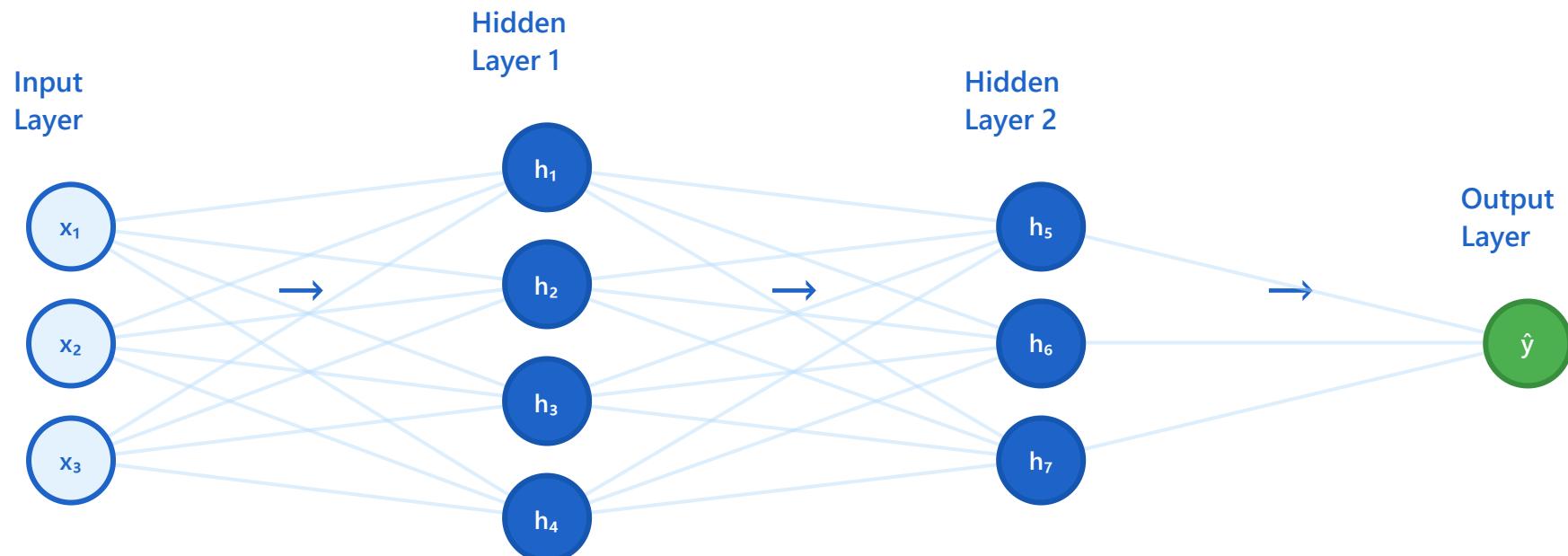


The Idea of Multi-layer Structure



Layer Hierarchy

Each layer transforms input features into increasingly abstract representations

Non-linear Mapping

Activation functions enable learning complex non-linear decision boundaries

Depth Advantage

Multiple layers allow hierarchical feature learning and greater expressiveness

Core Principle: By stacking multiple layers with non-linear activations, neural networks can learn to transform linearly inseparable problems into linearly separable ones