What are Large Language Models?

▶ AI systems trained on vast amounts of text data

▶ Neural networks with billions to trillions of parameters

▶ Capable of understanding and generating human-like text

▶ Built primarily on Transformer architecture

▶ **Scale:** Trained on petabytes of text from the internet

▶ **Emergent Abilities:** Capabilities that emerge at scale

▶ **Few-shot Learning:** Can learn new tasks from examples

▶ **Generalization:** Apply knowledge across domains

💡 **Key Insight:** LLMs learn patterns in language by predicting the next word in a sequence, developing sophisticated understanding of grammar, facts, and reasoning.