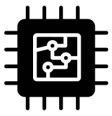
Top 20 AI Concepts You Should Know

Top 20 AI Concepts Every Developer Should Know

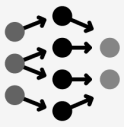
ByteByteGo

1 Machine Learning



Core algorithms, statistics, and model training techniques

2 Deep Learning

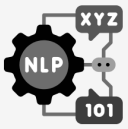


Hierarchical neural networks learning complex representations automatically

3 Neural Networks

Layered architectures efficiently model non-linear relationships accurately

4 NLP



Techniques to process and understand natural language text

5 Computer Vision

Algorithms interpreting and analyzing visual data effectively

6 Reinforcement Learning

Distributes traffic across multiple servers for reliability

7 Generative Models

Creating new data samples using learned distributions

8 LLM

Generates human-like text using massive pre-training data

9 Transformers

Self-attention-based architecture powering modern AI models

10 Feature Engineering

Designing informative features significantly improving model performance

11 Supervised Learning

Learns useful representations without labeled data

12 Bayesian Learning

Incorporates uncertainty using probabilistic model approaches

13 Prompt Engineering

Crafting effective inputs to guide generative model outputs

14 AI Agents

Autonomous systems that perceive, decide, and act

15 Fine Tuning Models

Customizes pre-trained models for domain-specific tasks

16 Multimodal Models

Processes and generates across multiple data types

17 Embeddings

Transforms input into machine-readable vector formats

18 Vector Search

Finds similar items using dense vector embeddings

19 Model Evaluation

Assessing predictive performance using validation techniques

20 AI Infrastructure

Deploying scalable systems to support AI operations

Revision #1
Created 24 June 2025 16:18:40 by EMB
Updated 24 June 2025 16:18:49 by EMB