CDW Documentation

Key Terms for AI

Key Terms for AI

Term / Technology	Category	Definition / Description
Artificial Intelligence (AI)	Concept	Simulation of human intelligence by machines, especially computer systems.
Machine Learning (ML)	Concept	Algorithms that allow computers to learn patterns and make decisions with data.
Deep Learning	Subfield of ML	Uses neural networks with many layers to model complex representations.
Natural Language Processing (NLP)	Subfield of AI	Enables machines to understand and generate human language.
Computer Vision	Subfield of AI	AI techniques to interpret images and videos.
Reinforcement Learning	ML Methodology	Models learn by interacting with an environment and receiving feedback.
Supervised Learning	ML Type	Model is trained on labeled input-output pairs.
Unsupervised Learning	ML Type	Model learns from unlabeled data by identifying patterns.
Transformer	Model Architecture	Deep learning architecture using self-attention, core to GPT and BERT models.
Token	NLP Concept	A unit of text, like a word or subword, used in language models.
Prompt Engineering	AI Interaction Design	Crafting model inputs to steer the output toward desired results.
Inference	AI Operation	Running data through a trained model to get predictions or outputs.
Training	AI Operation	Teaching a model using data so it can make accurate predictions.
Bias	Ethical Concern	Systematic errors in AI that can lead to unfair or discriminatory results.
Explainability	AI Governance	Making AI models' decisions interpretable and understandable to humans.
Tuning / Fine-tuning	Model Optimization	Adjusting a pre-trained model for a specific task or domain.
Overfitting	ML Issue	When a model performs well on training data but poorly on new data.
Model Context Protocol (MCP)	Model Integration	Standardized interface or protocol designed to allow language models (LLMs) to access, interpret, and maintain context across multiple interactions, tools, and data sources.

Key Technologies and Platforms

Technology	Category	Description
OpenAI	Foundation Model Provider	Creator of ChatGPT and GPT models. Offers APIs for LLMs, embeddings, and other AI services.
Azure OpenAI Service	Cloud Platform	Microsoft’s hosted version of OpenAI models with enterprise security, scaling, and governance.
Anthropic	Foundation Model Provider	AI company focused on safety and alignment, creator of the Claude model family.

Technology	Category	Description
Mistral (MCP)	Foundation Model Provider	European AI company building open-weight language models, known for fast inference and performance.
Agentic AI	AI Paradigm	AI systems that act autonomously and can make decisions, take actions, and pursue goals across tools and environments.
LangChain	Agentic Framework	Framework to build agent-based AI applications using chains of prompts, tools, and models.
AutoGPT	Agentic Framework	Autonomous AI agent that breaks down tasks into subtasks and self-prompt to complete goals.
Hugging Face	AI Platform / Model Hub	Open-source platform hosting thousands of models, datasets, and transformers tools.
LLMOps	Operational Practice	Managing, deploying, monitoring, and improving LLMs in production (similar to MLOps).
Retrieval-Augmented Generation (RAG)	AI Technique	Combines LLMs with external knowledge sources (e.g., vector databases) for more accurate and current answers.

AI Knowledge