

Breaking Down AI Jargon & Campus Resources

Artificial intelligence (AI) is a field of research and a class of technologies that enable systems to perform tasks requiring human intelligence, such as understanding language, recognizing patterns, reasoning, and learning from data. As AI evolves, so does its terminology. This handout clarifies key AI terms and highlights AI resources available on campus for research and learning.



AI Model: A trained computational system that learns patterns from data to generate outputs, make predictions, or perform tasks. Examples include language models (e.g., Claude Sonnet 5) for language-based tasks, diffusion models (e.g., DALL·E 3) for generating images and other media, and multimodal models (e.g., Gemini 3.5 Flash) that process and generate content across multiple types of data.



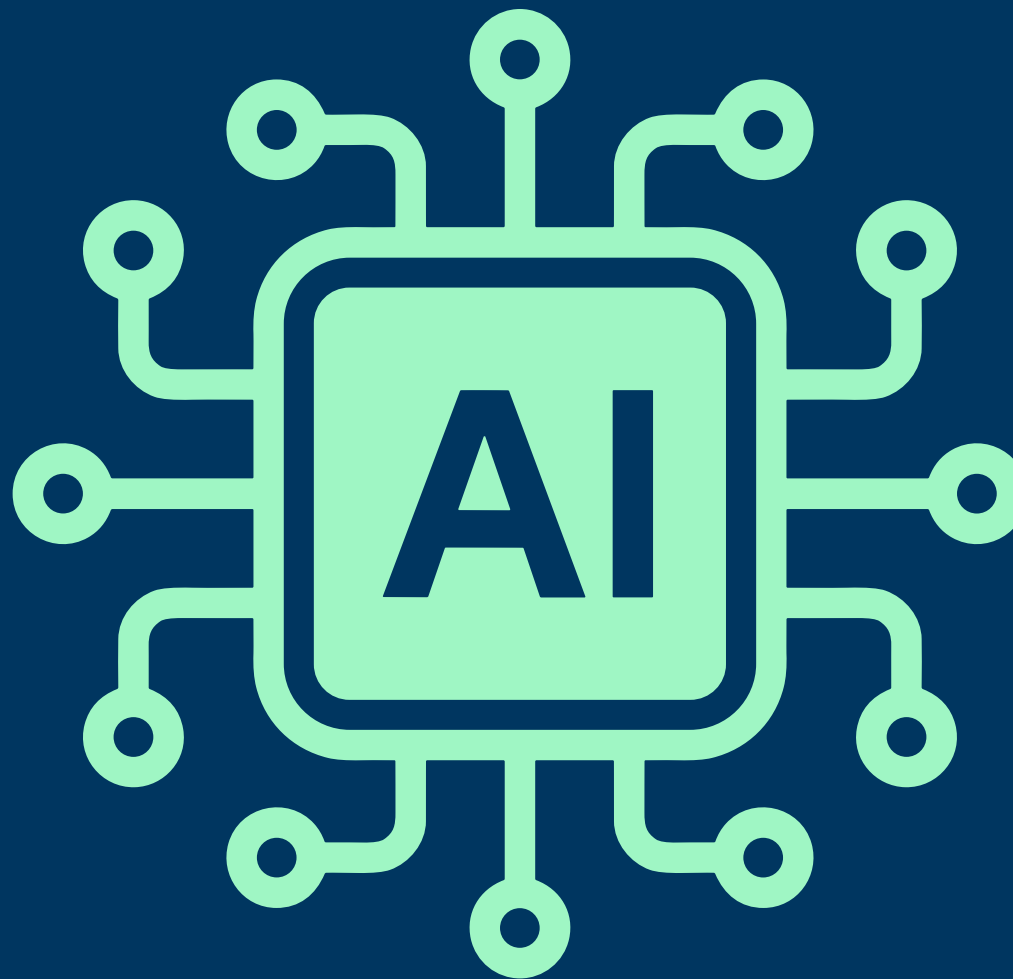
Large Language Models (LLMs): A type of AI model trained on large amounts of language data and parameters to learn patterns and generate human-like responses.



GenAI Tool: The platform through which users interact with the AI, ranging from chatbots and assistants like Gemini or Claude to IDEs such as GitHub Copilot Workspace and Cursor.



AI Chatbot: A user-facing application or voice assistant that uses an AI model to understand user input and generate context-aware conversational responses in real time.



Explore Stanford's AI glossary for more terms:
hai.stanford.edu/ai-definitions



Retrieval-Augmented Generation (RAG): An engineering framework that connects an LLM to an external knowledge source (e.g., PDFs, databases, web) to retrieve relevant content at query time, producing more accurate, up-to-date responses and reducing hallucinations without retraining the underlying model.



AI Agents: AI-based systems that interpret goals or instructions, then autonomously plan and execute sequences of actions, often under defined constraints and permissions, with the ability to incorporate human approval for higher-stakes actions.



Coding Agent: A specialized AI agent purpose-built for software development, capable of reading, writing, testing, and debugging code autonomously, often across multiple files or an entire repository.



Agentic AI: The higher-level orchestration system that plans, reasons, and coordinates multiple agents across systems, solving problems that are too complex for a single agent.



Prompt Engineering: The process of designing, refining, and optimizing the input (prompt), including wording, format, examples, and constraints, to guide LLMs or agents toward more accurate, relevant, and useful responses or actions.



Context Engineering: The practice of planning and managing what an AI model receives before generating a response (e.g., instructions, retrieved information, tools, and memory) to improve reliability and guide model behavior.

AI CAMPUS RESOURCES



Communities & Guidelines

AI @ UCSB

Guidelines, tools, and resources to support the responsible use of artificial intelligence. More info:
cio.ucsb.edu/artificial-intelligence

AI for Research Google Group

A discussion group on AI research applications. More info:
groups.google.com/a/its.ucsb.edu/g/ai-research

AI in Action: Conversation with Researchers

A speaker series to foster an open, interdisciplinary community exploring AI. More info:
www.library.ucsb.edu/events-exhibitions/events/ai-in-action

AI Community of Practice

An inclusive community dedicated to exploring ethical and equitable AI aligned with campus values. More info:
otl.ucsb.edu/cop/artificial-intelligence-community-practice



Tools & Services

Coder Workspaces

Virtual machines and on-demand coding environments for using AI agents safely. More info:
coder.dreamlab.ucsb.edu

AI Commons

An environment for innovation and exploration that provides access to foundational, popular, open-source, open-weight, and commercial models. More info:
aicommons.readme.io

GRIT LLM Server

A GPU-accelerated AI service that provides secure access to locally hosted large language models through a ChatGPT-like web interface. More info:
llm.grit.ucsb.edu

College of Letters & Science IT (CIT)

On-premises LLM access for UCSB students, staff, and faculty. More info:
docs.cloud.college.ucsb.edu

