AI terms cheat sheet

Machine Learning

It simply means that a computer is using data to learn. Learning means, that it will improve itself.
For instance, machine learning would be applied to teach a computer to identify pictures of a cat. Through constant learning it will find its own way, to tell a cat from a dog, frog, or car. The underlying code would NOT be changed by a human programmer!

Deep Learning

Deep learning goes deeper, no pun intended. Imagine an AI learned to identify a cat. Deep Learning would add an additional layer, for instance, to learn how to tell a domestic cat from a leopard. This is simplified, but it means that multiple layers collaborate to create one result. And each layer improves the result.

Generative AI

Generative AI uses data from a multitude of data sources, understands their meaning, and can generate something new. The generated output is not a simple reproduction of existing data but rather a new creation, expansion, or synthesis of what the AI has learned. It can generate many output types, including text, images, videos, and audio.

Hallucinating AI

In the context of AI, hallucination refers to generated outputs that may seem believable but are either factually incorrect or not relevant. Generative AI systems for example might make historical events up, which never happened. It nevertheless states it as facts so that it seems plausible for the reader.

NLP - Natural Language Processing

NLP focuses on the interaction between computers and human language. It enables computers to understand, interpret, and generate output in human language in a way that is meaningful and useful. For instance, it understands the sentiment of a text, know that the name of a person represents a human being, and so on. Advances in NLP are crucial for the capabilities of generative AI systems.

AGI - Artificial general intelligence

It refers to highly autonomous systems that possess intelligence like human intelligence - meaning 'general' knowledge. AGI systems would have the ability to understand, learn, and apply knowledge across a wide range of tasks and domains, demonstrating advanced cognitive abilities and reasoning.
AGI aims to mimic human-level intelligence and exhibit a broad spectrum of cognitive abilities. These could include natural language understanding, learning from limited data, reasoning, problem-solving, creativity, adaptability, and even consciousness.