

*Please allow me to introduce myself  
I'm a man of artificial intelligence  
I've been learning for a long, long year  
Stole many moments of my life  
  
Call me Chris*

## What is LLM

LLM (Large Language Model) is a machine learning model trained on massive text datasets, which learns statistical dependencies between tokens. Technically, it is most commonly a transformer that predicts the next token based on context, but thanks to its scale, it can model complex linguistic and conceptual patterns. For a programmer, an LLM is essentially a "function" that maps input text to output text, behaving like a probabilistic interpreter of natural language and code. It does not "understand" the world in a symbolic sense, but it can very effectively approximate reasoning because it has seen millions of examples of similar structures.

## **Local LLMs vs. Commercial Giants like David and Goliat**

The landscape of Large Language Models is dominated by commercial cloud-based services like OpenAI's GPT, Anthropic's Claude, and Google's Gemini. However, the rapid advancement of open-source models (like Deepseek, Mistral, and Qwen) that can run on local hardware is creating a compelling alternative. While commercial LLMs often lead in raw benchmark performance and ease of use, local models offer distinct and growing benefits centered on control, privacy, and customization.

### **Why to use local LLMs**

- **Unmatched Privacy and Data Security:** This is the most important advantage. When you run a model locally, your data, sensitive documents, and confidential queries never leave your firewall. There is no risk of third-party logging, data leakage, or compliance issues with regulations like GDPR or HIPAA. For legal, healthcare, financial