

# 12 Best GitHub Repositories to Learn LLMs

README

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LLM Course

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The LLM course is divided into three parts:

1. **LLM Fundamentals** is optional and covers fundamental knowledge about mathematics, Python, and neural networks.
2. **The LLM Scientist** focuses on building the best possible LLMs using the latest techniques.
3. **The LLM Engineer** focuses on creating LLM-based applications and deploying them.

LLM Engineer's Handbook

Awesome-LLM

awesome

QUESTION ANSWERING

SEMANTIC PARING

PROVERBS

ARITHMETIC

CODE COMPLETION

GENERAL KNOWLEDGE

READING COMPREHENSION

SUMMARIZATION

LOGICAL INFERENCE CHAINS

COMMON-SENSE REASONING

PATTERN RECOGNITION

TRANSLATION

DIALOGUE

JOKE EXPLANATIONS

PHYSICS QA

LANGUAGE UNDERSTANDING

540 billion parameters

Large Language Models (LLM) have taken the NLP community by storm. Here is a curated list of papers about large language models, especially relating to ChatGPT. It also contains frameworks for LLM training, tools to deploy LLM, courses and tutorials about LLM and all publicly available LLM checkpoints and APIs.

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Hands-On Large Language Models

[Follow Jay](#) [Follow Maarten](#) [DeepLearning.AI Course](#) [NEW!](#)

Welcome! In this repository you will find the code for all examples throughout the book [Hands-On Large Language Models](#) written by [Jay Alammar](#) and [Maarten Grootendorst](#) which we playfully dubbed:

*"The Illustrated LLM Book"*

Through the visually educational nature of this book and with almost 300 custom made figures, learn the practical tools and concepts you need to use Large Language Models today!

README

Code of conduct

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Security

license

apache2.0

pypi package

0.16.9

downloads

17M

build

check-status

openssf best practices

passing

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Latest News

DeepSpeed empowers ChatGPT-like model training with a single click, offering 15x speedup over SOTA RLHF systems with unprecedented cost reduction at all scales; [learn how](#).

- [2025/04] [DeepCompile: Unlocking Compiler Optimization for Distributed Training](#)
- [2025/03] [DeepSpeed-AutoTP: Automatic Tensor Parallel Training of Hugging Face models](#)
- [2024/12] [Ulysses-Offload: Democratizing Long Context LLM Training](#)
- [2024/12] [DeepSpeed-Domino: Communication-Free LLM Training Engine](#)
- [2024/08] [DeepSpeed on Windows](#) [\[日本語\]](#) [\[中文\]](#)

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Brex's Prompt Engineering Guide

This guide was created by Brex for internal purposes. It's based on lesson Large Language Model (LLM) prompts for production use cases. It covers strategies, guidelines, and safety recommendations for working with and large language models, like [OpenAI's GPT-4](#).

The examples in this document were generated with a non-deterministic LLM. The results may give you different results.

This is a living document. It will be updated every day. Dis



|          |      |         |       |                      |      |                |      |                          |     |            |          |
|----------|------|---------|-------|----------------------|------|----------------|------|--------------------------|-----|------------|----------|
| Tool Num | 3451 | API Num | 16464 | Current Dataset Size | 126K | Total API Call | 469K | Average Reasoning Traces | 4.0 | Tool LLaMA | Released |
|----------|------|---------|-------|----------------------|------|----------------|------|--------------------------|-----|------------|----------|

[Model](#) • [Data Release](#) • [Web Demo](#) • [Tool Eval](#) • [Paper](#) • [Citation](#)

## Tool LLaMA



# **mlabonne/llm-course**

This repository contains a complete theoretical and hands-on guide for learners of all levels who want to explore how LLMs work. It covers topics ranging from quantization and fine-tuning to model merging and building real-world LLM-powered applications.

Why it is important:

- It's ideal for beginners as well as for working professionals to enhance their knowledge, as each course is divided into clear sections from foundational to advanced concepts.
- Helps to cover both theoretical foundations and practical applications, ensuring a well-structured guide.
- Has a rating of more than 51k stars and a large community contribution.

# HandsOnLLM/Hands-On-Large-Language-Models

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This repository follows the O'Reilly book 'Hands-on Language Models' and provides a visually rich and practical guide to understanding the working of LLMs. This repository also includes Jupyter notebooks for each chapter and covers important topics such as: tokens, embeddings, transformer architectures, multimodal LLMs, finetuning techniques, and many more.

Why it is important:

- It gives practical learning resources for developers and engineers by offering a wide range of topics from basic to advanced concepts.
- Each chapter includes hands-on examples that help users to apply the concepts in real-world cases rather than just remember them theoretically.
- Covers topics like fine-tuning, deployment, and building LLM-powered applications.

# brexhq/prompt-engineering

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This repository contains a complete guide and offers practical tips and strategies for working with Large Language Models like OpenAI's GPT-4. It also contains lessons learned from researching and creating prompts for production use cases. This guide covers the history of LLMs, prompt engineering strategies, and safety recommendations. Topics include prompt structures, token limits on top LLMs.

Why it is important:

- Focuses on real-world techniques for optimizing prompts, hence it helps developers a lot to enhance the LLM's output.
- Contains a detailed guide and offers foundational knowledge and advanced prompt strategies.
- Large community support, and also have regular updates to reflect that users can access the latest information.



# Hannibal046/Awesome-LLM

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This repository is a live collection of resources related to LLMs, it contains seminal research papers, training frameworks, deployment tools, evaluation benchmarks, and many more. It is organized into different categories, including papers and application books. It also has a leaderboard to track the performance of different LLMs.

Why it is important:

- This repository gives important learning materials, including tutorials and courses.
- Contains a large quantity of resources, which makes it one of the top resources for master LLMs.
- With over 23k stars, it has a large community that ensures regularly updated information.

# OpenBMB/ToolBench

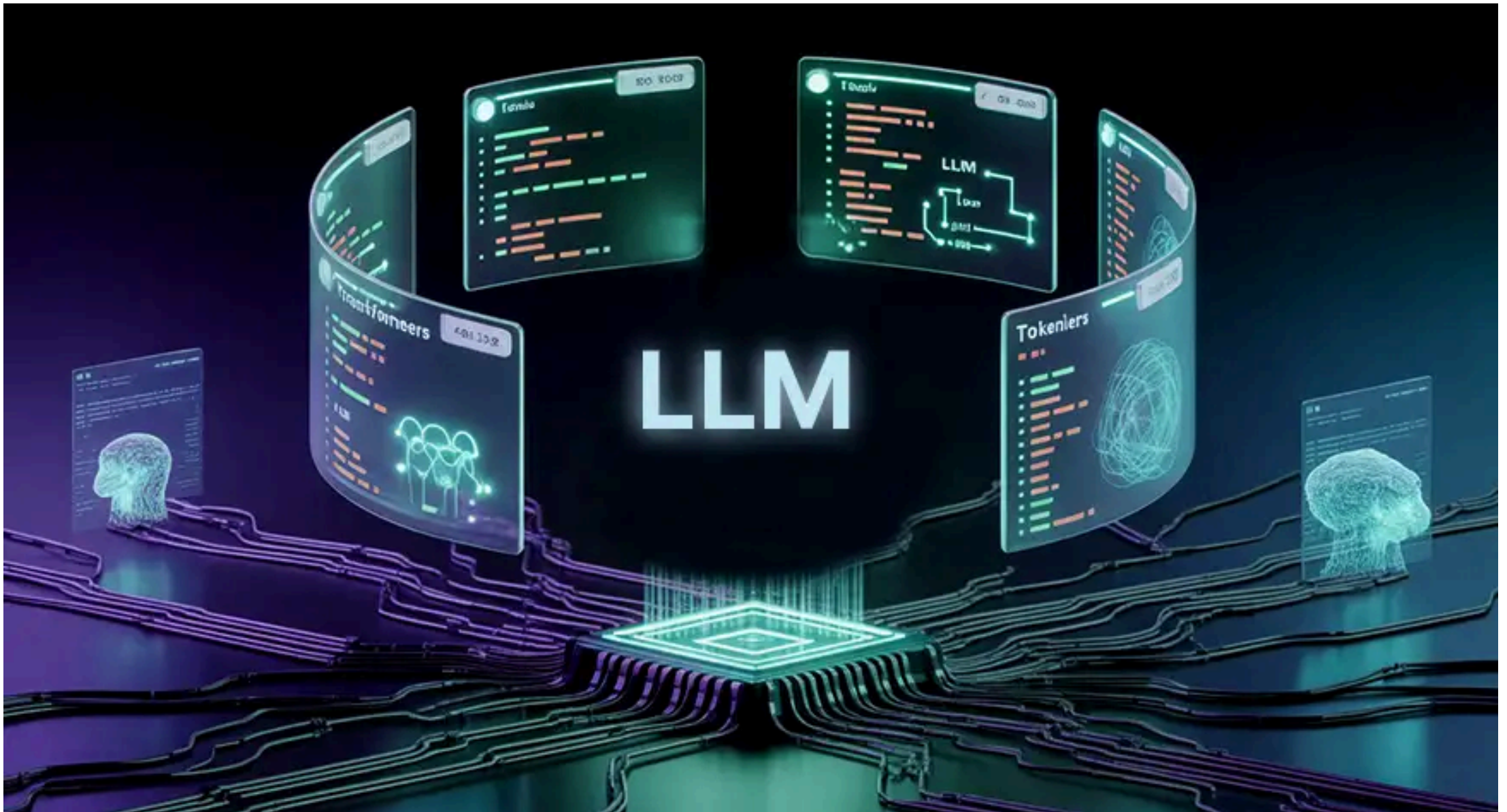
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ToolBench is an open source platform, this one is designed to train, serve, and evaluate the LLMs for tool learning. It gives an easy-to-understand framework that includes a large-scale instruction tuning dataset to enhance tool use capabilities in LLMs.

Why it is important:

- ToolBench enables LLMs to interact with external tools and APIs. This increases the ability to perform real-world tasks.
- Also offers an LLM evaluation framework, ToolEval, with tool-eval capabilities like Pass Rate and Win Rate.
- This platform serves as a foundation for learning new architecture and training methodologies.

For more information, kindly visit this [article](#)

[Github](#)[Intermediate](#)[Large Language Models](#)[LLMs](#)

## 12 Best GitHub Repositories to Learn LLMs

A curated list of the top 12 GitHub repositories like awesome-llm that come

Vipin Vashisth 28 May, 2025