

Hands-On Large Language Models

AI has acquired startling new language capabilities in just the past few years. Driven by rapid advances in deep learning, language AI systems are able to write and understand text better than ever before. This trend is enabling new features, products, and entire industries. Through this book's visually educational nature, readers will learn practical tools and concepts they need to use these capabilities today.

You'll understand how to use pretrained large language models for use cases like copywriting and summarization; create semantic search systems that go beyond keyword matching; and use existing libraries and pretrained models for text classification, search, and clusterings.

This book also helps you:

- Understand the architecture of Transformer language models that excel at text generation and representation
- Build advanced LLM pipelines to cluster text documents and explore the topics they cover
- Build semantic search engines that go beyond keyword search, using methods like dense retrieval and rerankers
- Explore how generative models can be used, from prompt engineering all the way to retrieval-augmented generation
- Gain a deeper understanding of how to train LLMs and optimize them for specific applications using generative model fine-tuning, contrastive fine-tuning, and in-context learning

"Jay and Maarten have continued their tradition of providing beautifully illustrated and insightful descriptions of complex topics. Their book is a valuable resource for anyone looking to understand the main techniques behind how large language models are built."

—Andrew Ng
founder of DeepLearning.AI

"I can't think of another book that is more important to read right now. On every single page, I learned something that is critical to success in this era of language models."

—Josh Starmer, StatQuest

Jay Alammar is director and engineering fellow at Cohere.

Maarten Grootendorst is senior clinical data scientist at the Netherlands Comprehensive Cancer Organization (IKNL).

DATA

US \$79.99 CAN \$99.99

ISBN: 978-1-098-15096-9



5 7 9 9 9

linkedin.com/company/oreilly-media
youtube.com/oreillymedia