

Generative AI using Cohere Models

Duration: 05 days

Courseware: Unofficial PPT/PDF

Lab: Koenig DC will be provided and model will be consumed via an API

Module 01: Get Started with Cohere Models

- The Cohere Platform
- Introduction to Large Language Models
- Developer Playground
- Cohere Toolkit
- Datasets

Module 02: Model types in Cohere

- Models Overview
- Embed
- Rerank

Module 03: Text Generation using Cohere Models

- Introduction to Text Generation at Cohere
- Using the Chat API
- Streaming Responses
- Structured Generations (JSON)
- Predictable Outputs
- Advanced Generation Parameters

Module 04: Retrieval Augmented Generation (RAG) using Cohere Models

- RAG Connectors
- Overview of RAG Connectors
- Creating and Deploying a Connector
- Managing your Connector
- Connector Authentication
- Tokens and Tokenizers

Module 05: Prompt Engineering using Cohere Models

- Crafting Effective Prompts

- Advanced Prompt Engineering Techniques
- Prompt Truncation
- Preambles
- Prompt Tuner (beta)

Module 06: Summarizing Text using Cohere Models

- Text Embeddings (Vectors, Search, Retrieval)
- Introduction to Embeddings at Cohere
- Batch Embedding Jobs
- Rerank Overview
- Rerank Best Practices
- Text Classification

Module 07: Fine-Tuning of Cohere Models

- Introduction
 - Fine-tuning with Web-UI
 - Programmatic Fine-tuning
 - Fine-tuning for Chat
- ⇒ Preparing the Chat Fine-tuning Data
- ⇒ Starting the Chat Fine-Tuning
- Understanding the Chat Fine-tuning Results
 - Improving the Chat Fine-tuning Results
 - Fine-tuning for Classify
- ⇒ Preparing the Classify Fine-tuning data
- ⇒ Trains and deploys a fine-tuned model
- ⇒ Understanding the Classify Fine-tuning Results
- ⇒ Improving the Classify Fine-tuning Results
- Fine-tuning for Rerank
- ⇒ Preparing the Rerank Fine-tuning Data
- ⇒ Starting the Rerank Fine-Tuning
- ⇒ Understanding the Rerank Fine-tuning Results
- ⇒ Improving the Rerank Fine-tuning Results

Module 08: Integrations of Cohere Models

- Introduction to LangChain
 - Chat on LangChain
- ⇒ Embed on LangChain

- ⇒ Rerank on LangChain
- ⇒ Tools on LangChain
 - Introduction to LlamaIndex

Module 09: Responsible Use of Cohere Models

- Cohere For AI Acceptable Use Policy
- Usage Guidelines
- Model Limitations
- Data Statement
- Generation Benchmarks
- Representation Benchmarks