

PromptCraft

RA Stringer

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Welcome

PromptCraft is a course to take developers from the basics of using language models to developing a prototype application in three days.

LLMs and Generative AI have revolutionised the field of machine learning. The power of the foundational models, prompt tuning and model adaption mean practitioners can achieve what used to take weeks or months in a matter of days.

This course uses Google Cloud's [Generative AI Studio](#) and is spread over three sessions, or days.

- Day one covers how to use clever prompting to categorize data, give effective responses grounded in data, validate, keep safe and evaluate outputs.
- Day two builds on the foundations of working with LLMs to developing complex applications. We cover:
 - An introduction to [LangChain](#), a popular library for interacting and building applications with LLMs.
 - LangChain memory, chains and agents.
 - Retrieval augmented generation (RAG): embedding data such as PDF reports or a product catalog to get nuanced and accurate answers to detailed questions.
 - Deep neural retrieval of an embedded product catalog using nearest neighbor search.
 - Fine-tuning a foundational model.
- Day three is a hackathon, where participants choose a use case, bring or create (via an LLM!) some data, and create a proof-of-concept application.

All lessons are launched via Colab. The course only requires the free tier to complete.

Prerequisites

- A Google Cloud account.
- A Google Cloud [project](#) with billing enabled.
- Familiarity with programming in Python.

Part I

Day One