

# Finetuning Process

## Instructor

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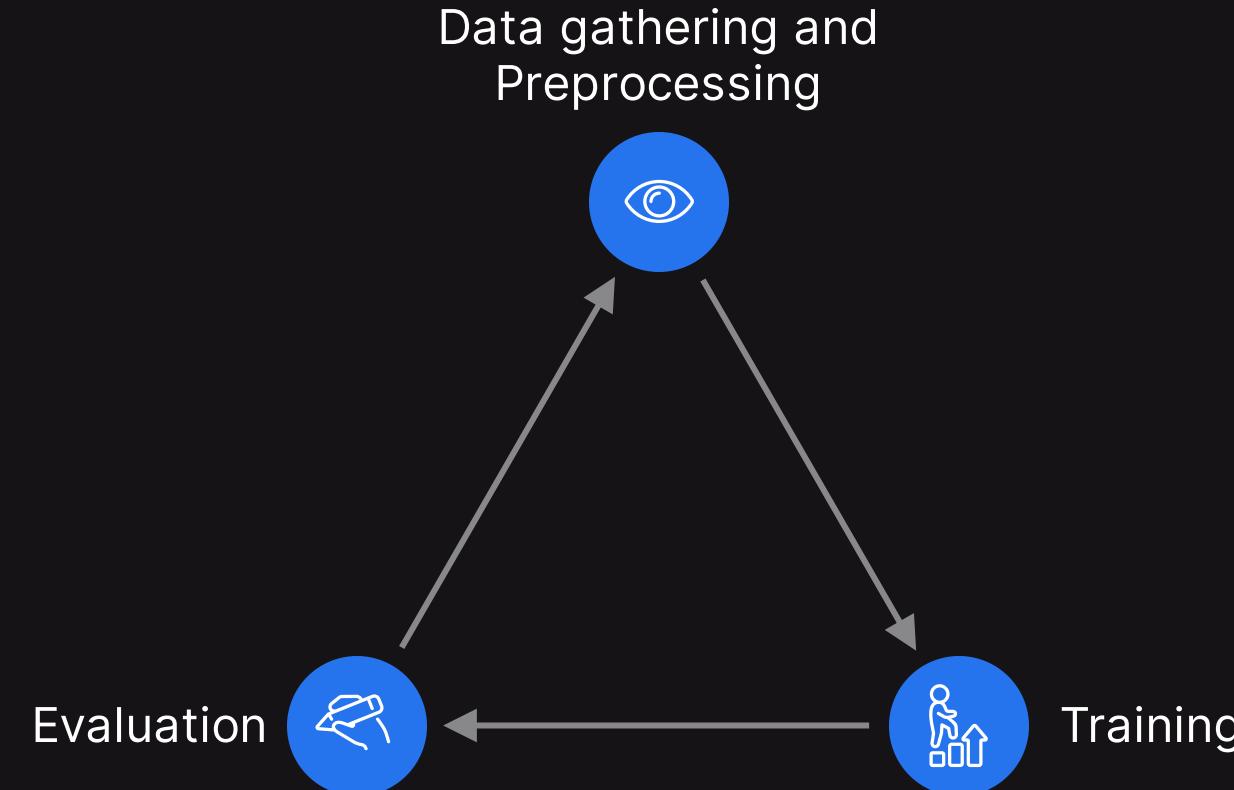
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# Finetuning Process

Data quality is the key during finetuning.



# Pre- Training vs Finetuning

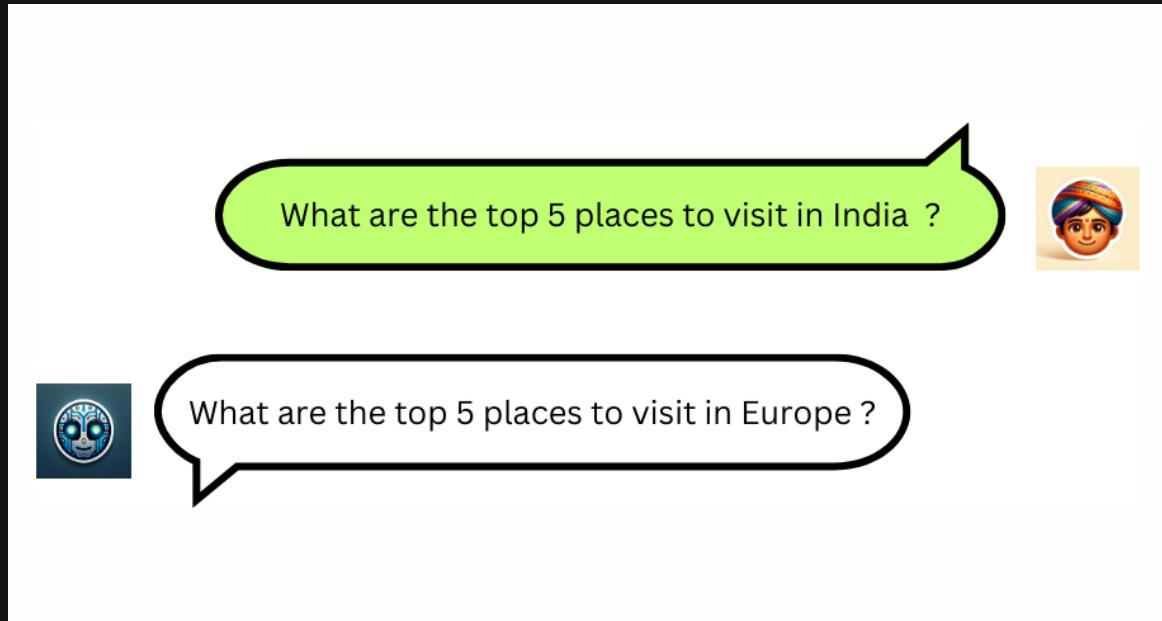
## Pre-Training

- Starts with no knowledge of the world. Random weights.
- The learning objective is to predict the next word, also known as Causal Language Modeling.
- Enormous Internet scale datasets - [Pile](#), [RedPyjama-2](#) (30 Trillion tokens and 20B documents ), [Stack](#)
- Self-Supervised learning.
- Learns language and compresses the information on the internet.

## Finetuning

- Starts with pre-trained model which has general world knowledge and language skills.
- Learning objective remains the same.
- Much less data is required. The numbers of samples are in the order of thousands. [Alpaca](#), [OpenAsst-Guanaco](#), [no\\_robots](#), [Lima](#)
- Supervised learning when you curate labelled data (recommended). Also supports Self-Supervised learning.
- Gains knowledge of the domain specific tasks/datasets and learns the traits of the task(s) to provide consistent outputs.

# Why Finetuning?



What are the top 5 places to visit in India ?

What are the top 5 places to visit in Europe ?

Base Model



What are the top 5 places to visit in India ?

Top 5 places to visit in India are:

- 1. Goa
- 2. Himachal Pradesh
- 3. Kashmir
- 4. Maharashtra
- 5. Delhi

Finetuned Model