HangiKredi

Fintech & Sustainability

From A to SME Loan – Project

08.09.2024

About HangiKredi

HangiPara

Open Banking and Wallet Services:
- Enable secure sharing of financial data and digital payments
- Enhance access to financial services for consumers and businesses
- Personalised recommendations

HangiKredi Yatırım

Offers Investment Tools for:
- Comparing stock market prices
- Delivering tailored buy/sell recommendations

These insights are based not only on real-time data but also on a deep analysis of company reports and recently published documents

HangiKredi Kobi

SME (KOBI) Loan Assistance helps SME:
- Identify the best available loan options
- Providing insights into the likelihood of approval based on financial profiles as well as lender criteria

Green Transformation Project

Optimize idle server resources with **AI** to ensure optimal performance and reduced energy consumption.

Aims:

- Reduce Energy Consumption
- Optimize Resource Use
- Reclaim Idle Resources
- Data-Driven Optimization

AI Technology: Reinforcement Learning– Sequence Modeling

Project
introduction

Introduction & Problem Statement

- **ESG Score:**
  Environmental, Social and Governance

- **SMEs & Securing Loans**:
  - Embracing ESG is not easy but has a lot of benefits
  - ESG reporting is resource-intensive and complex
  - Many SMEs lack the resources
  - to efficiently assess ESG readiness

- **Proposed Solution**:
  - A streamlined pre-evaluation framework to assess ESG readiness
  - Helps SMEs understand their ESG standing and predict loan approval

Approach & Data

- Framework Implementation Phases:
  - Fundamental Questionnaires
  - A-D Rating System
  - Decision Model

Source MSCI

A	B	C	D	E	F	G	H	I	J	K	L	M
Company	**EGroup1**	**EGroup2**	**EGroup3**	**EGroup4**	**Ggroup**	**SGroup1**	**SGroup2**	**SGroup3**	**SGroup4**	**Controversy Level**	**Controversy Score**	**ESG_Loan Approval**
1	A	A	A	A	A	A	A	D	D	Moderate Controversy Level	2	High
2	A	A	A	A	A	A	A	A	A	Low Controversy Level	1	High
3	A	A	A	A	A	A	A	A	A	Low Controversy Level	1	High
4	B	B	A	A	A	C	A	A	A	None Controversy Level	N/A	High

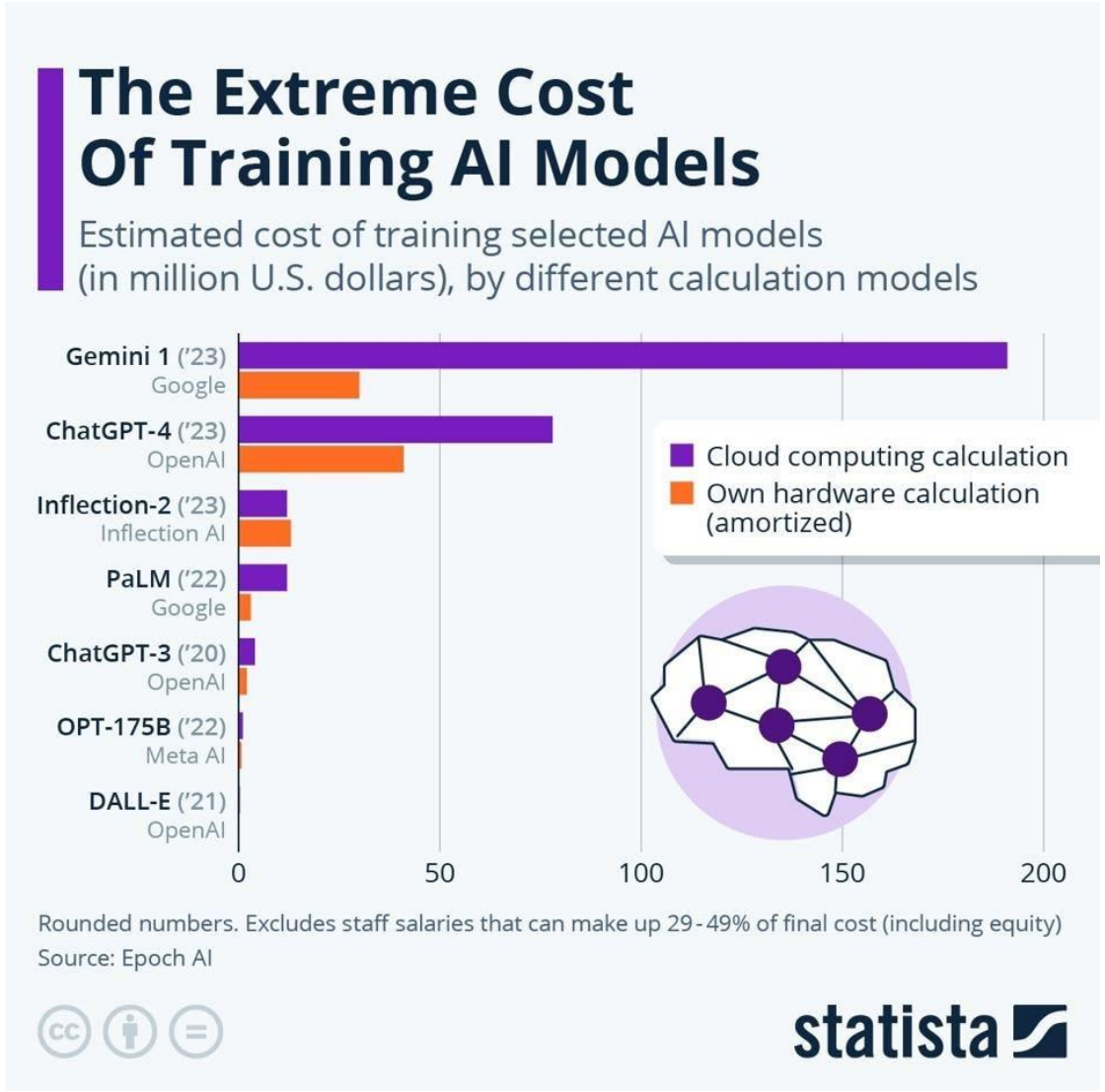
Objectives & Expectations

- Generate a model to predict the ‘ESG Loan Approval’
- Explain why the company is predicted as such “high, medium or low”
- Suggest some ideas to improve their status (business thinking)

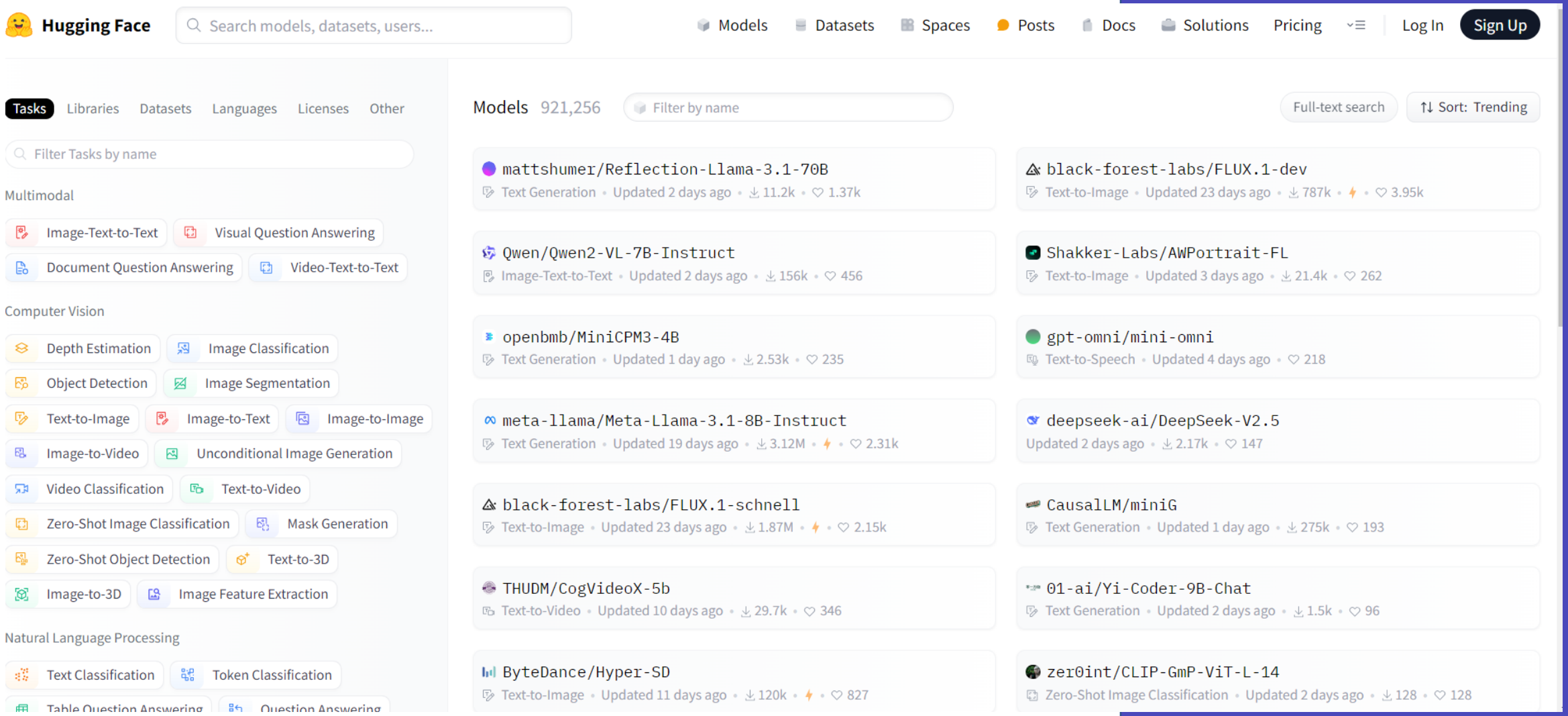
Expectations:

- EDA & statistical analysis – high
- Explanation of the methodology - high
- Predictive model - high
- Explainability of the model output - moderate
- LLM integration to generate a report – low

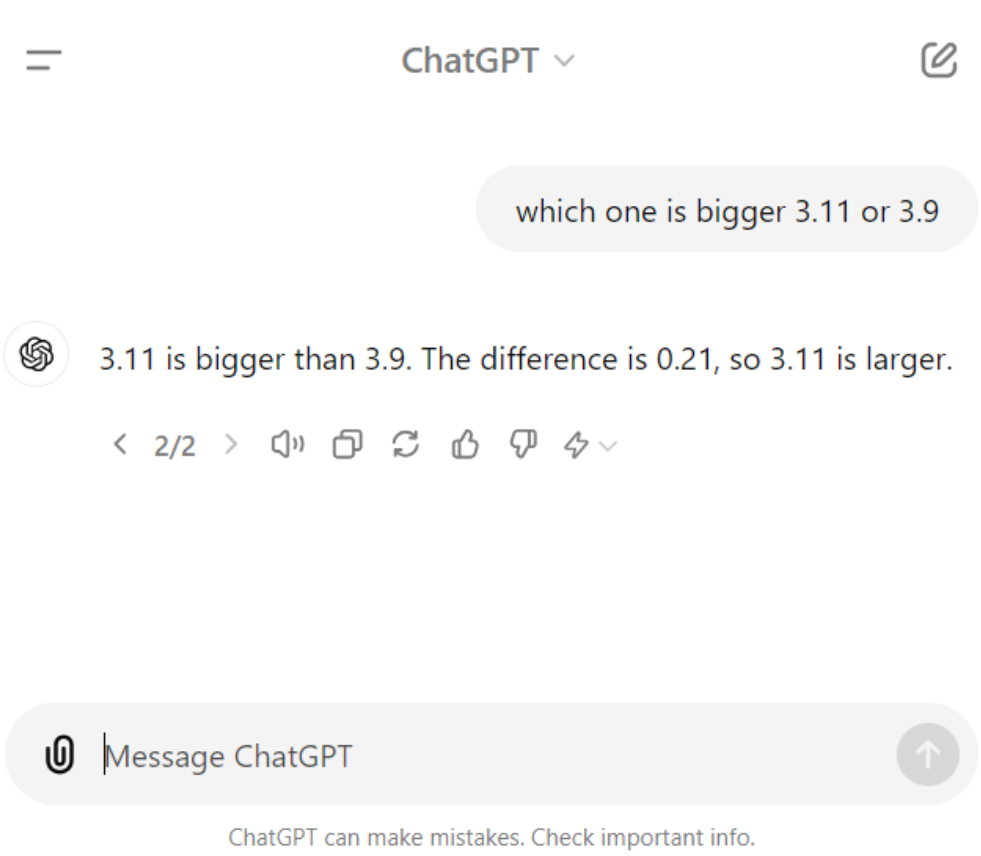
Cost of Training LLM Models



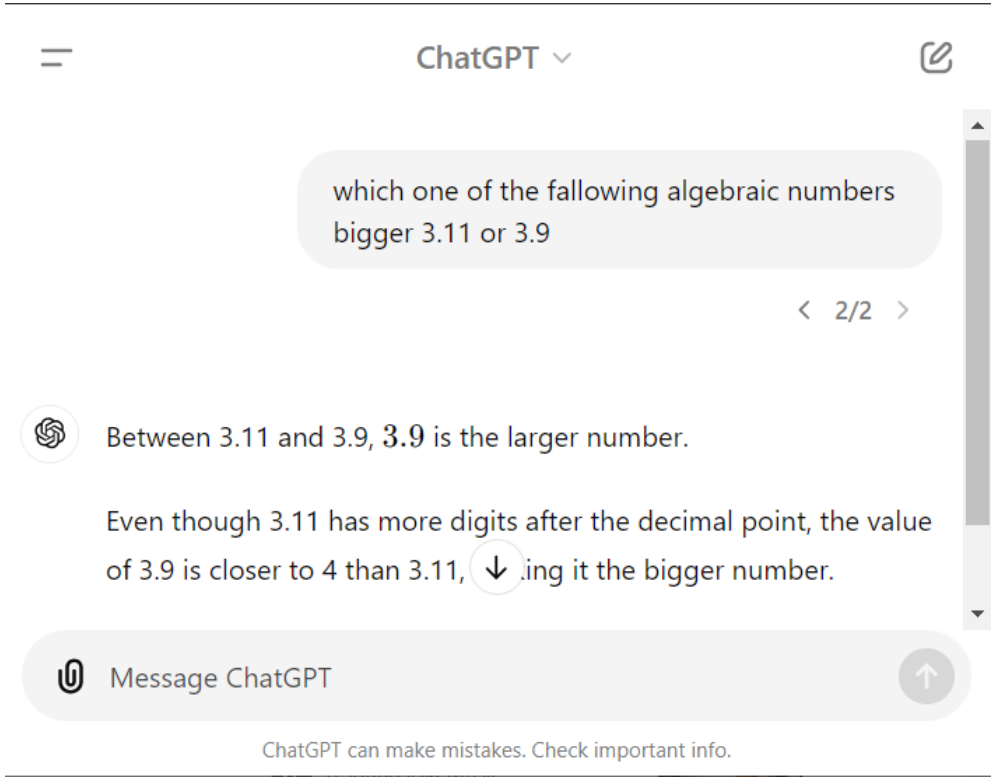
OpenSource LLM Modals



Are LLM Modals Really Advanced?



Talking the Same Language as LLM: Prompt Engineering

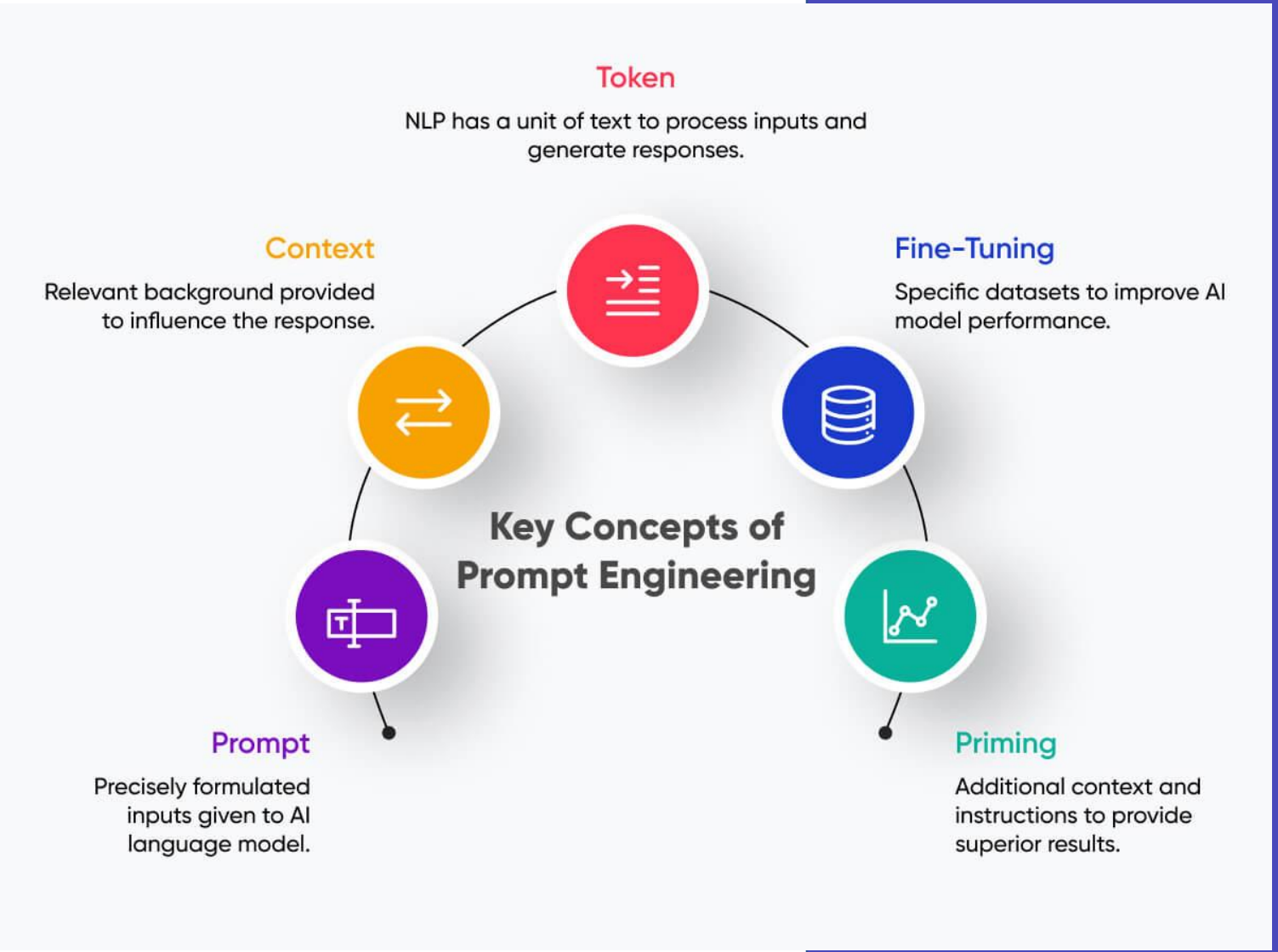


Prompt Engineering

Why?
- Efficiency
- Customization

How?
- Clarity
- Specificity

Techniques
- Role Playing
- Few-Shot Learning



LLM & Prompt Engineering
A Quick Hands-on

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Thank You!