

Let's Build Something Cool 🚀 | AI/ML Engineer – Mini Project & Assignments

Hi there 🙋

Thanks for applying for the **AI/ML Engineer** role at **Xorstack** — we're excited to see what you can build!

As the next step in our hiring process, we'd love for you to work on a **mini project and a few short technical assignments**. This helps us understand your thinking, engineering style, and approach to solving real-world problems.

No trick questions. Just show us how you think 💡



Mini Project (Snowflake + AI/ML)

This role focuses heavily on **Snowflake and AI/ML Operations**, so your mini project should use Snowflake as the primary platform.

Your Mission:

- Create a free **Snowflake trial account**
- Generate dummy data using **Mockaroo**
- Build a small **POC** that solves a real-world problem using AI/ML on Snowflake

Please Include:

- What problem you're solving
- How you approached the solution
- A working demo or POC in Snowflake



Technical Assignments

Please complete the following assignments in addition to the mini project:



Assignment 1: Prompt Engineering – Invoice Data Extraction

Task: Write a prompt to extract structured data from an invoice and return the result in **JSON format**.



We'll evaluate:

- Accuracy

- Output format correctness
- How you handle edge cases

Assignment 2: Mini RAG Bot – PDF Q&A

Task: Build a simple **Q&A chatbot over one PDF** using RAG.

 We'll evaluate:

- Chunking strategy
- Embedding approach
- Retrieval quality
- Answer reliability

Assignment 3: ML Project – CTR Prediction

Task: Build a **CTR prediction model**.

 We'll evaluate:

- Feature selection and reasoning
- Model performance metrics
- Data preprocessing
- Explainability

Additional ML Tasks

Please also explain clearly:

- How would you build a **Spam Classification model**? (Approach + reasoning)
- What **features** would you use in a CTR system?
- How do you handle **class imbalance**?

LLM Prompt Tasks

Write prompts for:

- Extracting **structured data**
- Summarizing a **legal document**
- Detecting **sentiment**
- Converting **SQL → English**

How to Submit

You can share your work through:

- A **GitHub repository** (include a clean README explaining everything), or
- An **unlisted YouTube video** walking us through your solutions

Timeline

Please submit everything within **4 days** of receiving this email.

We're looking forward to seeing your creativity, problem-solving skills, and engineering mindset in action.

Have fun building — and good luck!

 Cheers,
Team Xorstack