poridhi

AI
ENGINEERING
HACKATHON

POWERED BY

BRAIN STATION 23

RULE BOOK &

PROBLEM STATEMENT

for more information visit

poridhi.io/hackathon

AI ENGINEERING HACKATHON

POWERED BY BRAIN STATION 23

Artificial Intelligence is revolutionizing software engineering and reshaping the global tech ecosystem. From automation to data-driven decision-making and intelligent system development, AI is unlocking new opportunities for developers. However, integrating AI into software requires a new kind of engineering mindset. Simply making API calls to an LLM isn't enough—AI's power comes with unpredictability, demanding innovative engineering approaches.

Many engineers in the industry are already working with AI or will soon need to. To ensure that both professionals and students stay ahead in this evolving landscape, Poridhi and Brain Station 23 are bringing you AI ENGINEERING HACKATHON, a platform to compete, learn, and innovate in AI system building. Get ready to push the boundaries of AI engineering!

AI ENGINEERING HACKATHON

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NAME

Poridhi presents AI Engineering Hackathon

Powered by Brain Station 23

DATE

26 April, 2025

VENUE

BRAIN STATION 23

12TH FLOOR, 1 BIR UTTAM AK
KHANDAKAR ROAD, DHAKA 1212

TIME

8.00 AM- 9.15 PM

AI ENGINEERING HACKATHON

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PRIZE MONEY

CHAMPION TEAM
2,50,000 BDT

FIRST RUNNERS -UP TEAM
50,000 BDT

SECOND RUNNERS -UP TEAM
30,000 BDT

SPECIAL MENTION TEAM
20,000 BDT

WHAT WILL YOU GET

Participation Certificate for all the participants.

Multiple training sessions for the hackathon preparation.

Access to 20+ Exclusive Hands-on Labs from Poridhi

Breakfast, dinner and evening snacks on the event.

PROGRAM OUTLINE

TIME	PARTICULARS
7.30 AM — 8.00 AM	ATTENDANCE & REGISTRATION
8.00 AM — 8.15 AM	INAUGURATION PROGRAM
8.15 AM — 8.30 AM	BRIEFING & HACKATHON STARTS
9.00 AM — 9.30 AM	BREAKFAST & REFRESHMENT
12.00 PM — 2.00 PM	PRAYER & LUNCH BREAK
4.30 PM — 5.00 PM	EVENING SNACKS
7.00 PM — 8.30 PM	PRESENTATION
8.30 PM — 8.45 PM	KEYNOTE SPEECH
8.45 PM — 9.15 PM	PRIZE GIVING CEREMONY

CODE OF CONDUCT

Respectful Communication: Participants are expected to communicate respectfully with each other, including avoiding the use of profanity or derogatory language. We ask that everyone refrains from making personal attacks or engaging in harassment, discrimination, or any other behavior that could make others feel uncomfortable or unwelcome.

Inclusive Attitude: We encourage diversity and inclusivity in all forms, and we expect participants to maintain a welcoming and supportive attitude towards everyone, regardless of their gender, race, ethnicity, nationality, age, or religion.

Professionalism: Participants are expected to behave professionally and act in good faith throughout the event. This includes adhering to the rules and guidelines of the hackathon, working collaboratively with others, and respecting the intellectual property of others.

CODE OF CONDUCT

Reporting Concerns: If a participant witnesses or experiences behavior that violates the code of conduct, they are encouraged to report it to the hackathon organizers immediately. We take all reports seriously and will investigate any concerns fairly and impartially. The organizer committee has the full right to disqualify any participant and void the championship if they are found violating any of the rules or if their conduct is deemed inappropriate.

By following this code of conduct, we can create an environment that fosters creativity, collaboration, and innovation. Violations of the code of conduct may result in consequences such as warnings, temporary or permanent bans, or legal action if necessary.
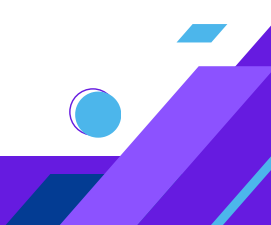
PROBLEM STATEMENT

The "**AI Engineering Hackathon 2025 powered by Brain Station 23**" challenges teams to push the boundaries of intent-based product search, where engineering excellence meets real-world AI scalability. Participants will tackle the complexities of AI-driven search, balancing precision, performance, and scalability while ensuring a robust and efficient deployment pipeline.

From fine-tuning embedding models to architecting resilient search infrastructures, teams will be judged on their ability to navigate key AI engineering principles.

KEY ENGINEERING CHALLANGES

✅ **Scalability & Deployment:** Architect a system that maintains low latency under high traffic.

✅ **Model Optimization:** Fine-tune embeddings and optimize ranking models for relevance.

✅ **Guardrails & Safety:** Implement hallucination prevention, bias mitigation, and ethical AI principles.

✅ **Monitoring & Observability:** Integrate tracing, logging, drift detection, and real-time monitoring.

✅ **Architectural Decisions:** Evaluate RAG vs. agentic workflows or engineer a novel hybrid solution.

✅ **Cost & Latency Optimization:** Reduce compute overhead while improving inference efficiency.

✅ **Dataset Engineering:** Design robust data pipelines for fine-tuning, indexing, and retrieval.

✅ **Infrastructure & Security:** Build scalable, resilient architectures while implementing API security, rate limiting, and access controls.

✅ **Continuous Improvement:** Implement automated feedback loops for self-improving search accuracy.

KEY ENGINEERING CHALLANGES

This hackathon is about tackling real-world AI engineering challenges at scale. Can you design a high-performance, secure, and scalable search system that truly understands user intent?

◆ How will you optimize your search pipeline for speed and efficiency?

◆ Will you choose RAG, agentic workflows, or invent a new hybrid model?

◆ Can you minimize inference costs while maximizing retrieval accuracy?

◆ How will you engineer thescalable data pipelines for fine-tuning and continuous learning?

◆ Can your system detect drift, monitor the real-time performance, and ensure observability?

◆ How will you deploy a security-first architecture that protects data and ensures API resilience?

The winning teams will prove their engineering expertise, strategic decision-making, and ability to scale AI systems in production.