

Building AiKA at Spotify

Leveraging Internal Knowledge



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Engineers consistently cite
difficulty finding information and
poor or missing documentation as
major barriers to productivity



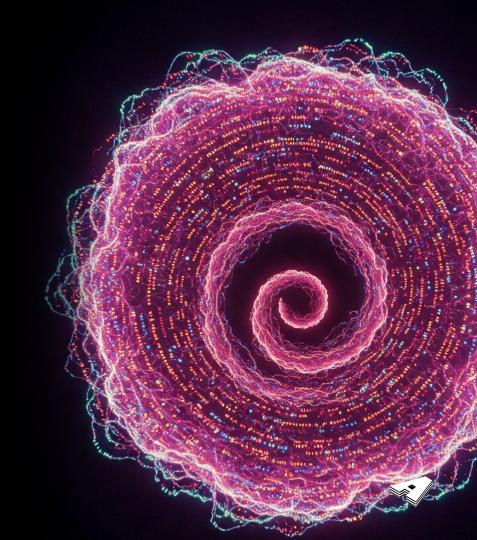
Knowledge Fragmentation

Internal Docs Code Repositories Communication & more

+10K sites +150 channels

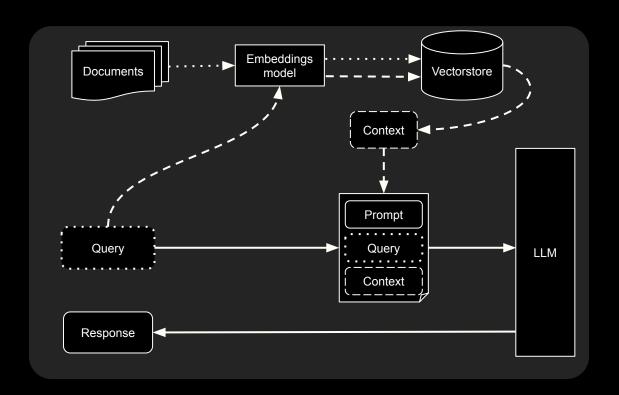


Large Language Models

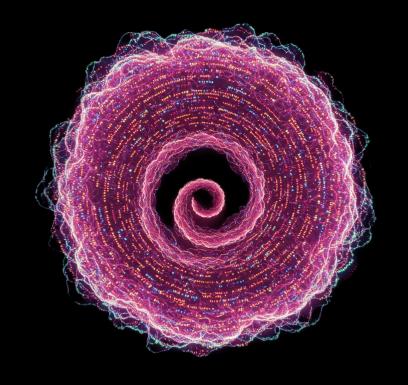


Retrieval Augmented Generation

Hard problem meets new solution







Trust from Transparency

Knowledge Feedback Loop

Flexibility

Extensibility

Ubiquity





Hello, I'm AiKA



Let me know what I can help you with?

Hello AiKA! Tell me about yourself



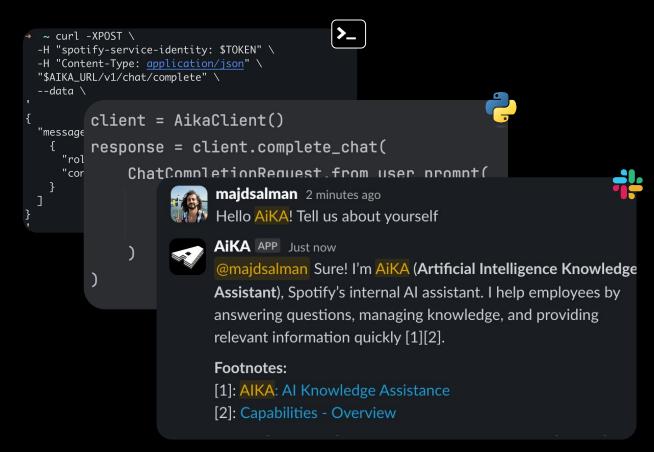


Hello! I am AiKA, an Al assistant designed to help Spotify employees. My primary goal is to provide information and support on a variety of topics, with a focus on clarity and accuracy. I can explain complex concepts, offer definitions, and provide step-by-step instructions. I am also able to use LaTeX to represent mathematical equations.

I am here to assist you with your queries and improve your workflow. How can I help you today?



Same platform powering different experiences





What is MMA?





MMA (Manage Monitoring and Alerting) is a tool used at Spotify to define Grafana Dashboards declaratively within your repository. It simplifies the creation and management of monitoring dashboards and alerts, ensuring changes can be tracked effectively. MMA is a Golden Technology for backend components and is integrated into the Tingle pipeline for previewing changes before merging¹²³⁴.

- 1. MMA Context ←
- 2. MMA for Web Projects ←
- 3. Working with MMA ←
- 4. Decision to Use MMA ←

Which team owns the feature that allows users to choose an image for their playlist cover art?





The "change cover image" button flow, which allows users to upload a custom image for their playlist cover directly, is owned by the #mariners team1. They are responsible for the entry point in the native app and the related functionality for updating playlist covers.

1. Slack Discussion on Ownership ←







In Python, yield is used in a function to create a generator. It pauses the function's execution and returns a value, resuming from where it left off when iterated over. This is useful for memory-efficient iteration.

Example:

```
def count_up_to(n):
    count = 1
    while count <= n:</pre>
        yield count # Pause and return th
        count += 1
# Using the generator
for number in count up to(5):
    print(number)
```





1000+

employees use AiKA daily

25%

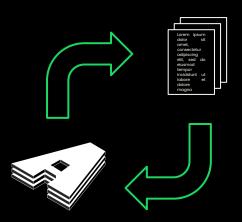
of all employees use AiKA **weekly**

70%

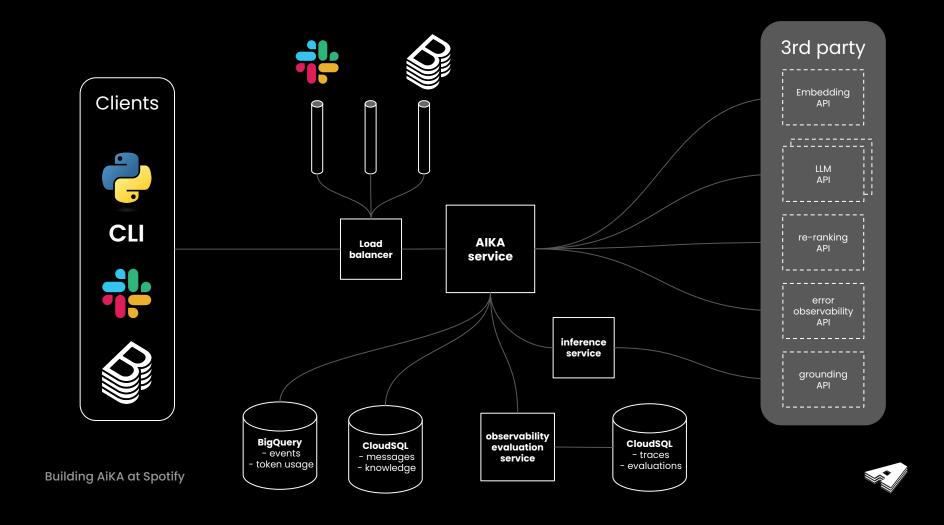
of all employees have used it at least once



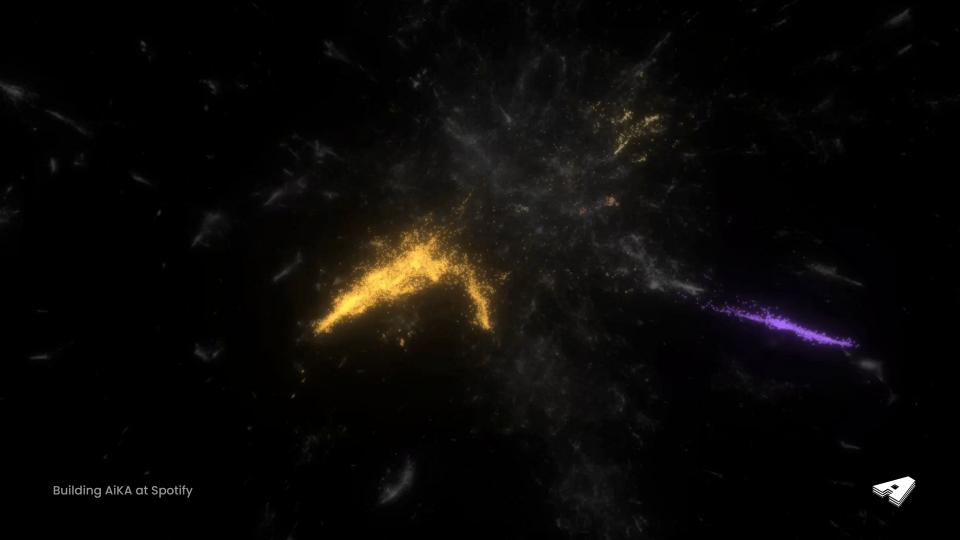
As a knock-on effect, AiKA incentivises improvements to internal documentation









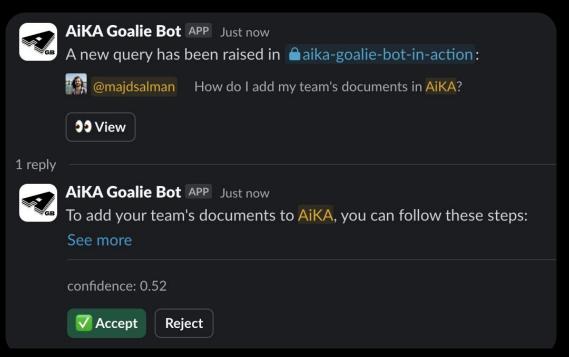


AiKA + Knowledge filters = Custom assistant

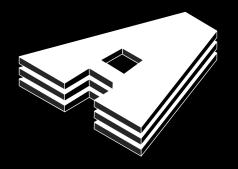


AiKA Goalie Bot

Automated # Slack support







+100 support channels installed

30% of internal support questions answered through the support bot



Learnings & Challenges

- Vector search is coarse
- More context is not that much better
- Every data source/format needs special consideration
- Hallucination vs bad data?



From Knowledge Assistant to Agent



Semantic search with multiple knowledge sources



Enhanced reasoning for complex questions, dynamic retrieval source selection



Agentic capabilities with tool integrations





We're releasing AiKA as part of Backstage Portal Cloud



Tack! Thank you!





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