

SIGHT Project - Meeting 08

Project Name: Safety Immersion and Gamified Hazard Training for Industry 5.0 Workers

Project Number: WSIC26-250206-009

Date: October 24, 2025

Time: 11:00 AM EST

Location: Zoom

Meeting Focus: Review of Miami University's technical updates on the Retrieval-Augmented Generation (RAG) evaluation pipeline and gathering of partner feedback.

Attendees

- **Miami University (MU):** Fadel Megahed (PI), Arthur Carvalho (Co-PI), Jay Shan (Co-PI), Reza Abrisham Baf (SP), Ibrahim Yousif (Post Doc), Michael Wise (Graduate Research Assistant), Austin Hamilton (Student Assistant), Ryan Singh (Student Assistant), Amanda White (Student Assistant), Mohamed Farrag (Project Manager), Maressa Dixon (Evaluator, Discovery Center)
- **Consultant:** Lora Cauvuto (Safety Consultant, UB)
- **MaxByte:** Ramshankar CS (CEO), Harish Chittaluri (Tech Lead)
- **MeetKai:** Jacquie Babakanian (Chief of Staff), Andre Amorim (3D Graphics Artist), Alexander Elert (Software Engineer), David Arcia (Software Engineer), Declan Li-carney (Software Engineer), Vincent Cheong (AI Engineer)
- **Engineered Profiles:** Vick Dhanapal (VP of Innovation)

Meeting Minutes & Discussion

1. Call to Order & Administrative Updates

- Fadel Megahed opened the meeting, stating the primary purpose was to discuss technical updates on grounding AI responses (the RAG pipeline) and to solicit feedback from partners.
- An update was provided on administrative deliverables submitted to the BWC, noting the on-time submission of the Project Communication Plan (DO 6.1), Q1 BWC Meeting attendance (DO 3.1), and September/October meeting documentation (DO 2.3).
- Mohamed Farrag provided a summary of the recent BWC Q1 Meeting. The project's progress was presented to sponsors, and the feedback received was reportedly very positive.

2. MU Technical Discussion: RAG Evaluation Pipeline

- The Miami University technical team presented an overview of the current automated RAG evaluation workflow and scripts.
- The discussion centered on the next steps for finalizing this pipeline, including:
 - **Benchmark Datasets:** Finalizing the benchmark question-and-answer sets, which is being coordinated with Lora Cavuoto (Consultant), Vick Dhanapal (Industry Expert), and the MU Hamilton Team (Reza and Michael).
 - **Experiment Configuration:** Deciding on the initial reasoning effort levels and retrieval configurations to be used in the first round of experiments.
 - **Human Validation:** Outlining the integration plan for human experts to validate the outputs of the top-performing RAG configurations.

3. Industry Partner and Consultant Feedback

- The meeting then moved to a structured feedback session based on the technical presentation.
- **Q&A Benchmark Feedback:** Partners from MaxByte (Harish Chittaluri, Ramshankar CS) and Engineered Profiles (Vick Dhanapal) provided initial feedback on the proposed Q&A benchmarks for the co-bot training module. The discussion focused on ensuring the questions align with real-world operational scenarios and safety priorities at their facilities.
- **RAG Integration Feedback:** The MeetKai team provided feedback on the proposed RAG integration plan, with a brief discussion on technical specifications and API handoffs for integrating the grounded AI responses into the 3D environment.
- Vick Dhanapal's team was specifically acknowledged for their willingness to provide detailed feedback, which was noted as extremely valuable to the project's development.

4. Short Updates from Industry Partners

- MeetKai provided a thorough presentation of the updates to their 3D rendering of the equipment and the room.

5. Wrap-Up and Next Steps

- Fadel Megahed concluded the meeting by thanking all participants for their time and valuable feedback.
- The following action items were identified:

Action Items

1. **MeetKai (Andre):** To create and send a document containing any questions and photo requests

to the MU team, coordinating through Jacquie Babakanian.

2. **MU Team (Austin/Ryan):** To continue coordinating with Lora Cavuoto to finalize the benchmark question sets for the RAG evaluation.
3. **MU Team (Reza):** Volunteered to provide MeetKai with images of the AM Hub so that the “room” environment is similar to the AM Hub.
4. **MaxByte:** Committed to:
 - Providing a detailed update of their progress on the Nov 07, 2025 meeting.
 - Providing example data extracted using the IIoT from CNC machine (from one of their current or existing projects) to help the AI subteam explore how this data can be leveraged by the LLMs.
 - Provide additional feedback on the Q&A benchmarks when requested.
5. **Engineered Profiles:** To provide any further or more detailed feedback on the Q&A benchmarks to the MU team.