Activity 2 – Hackathon (Amritha University)

Botcraft – Building Conversational AI

Introduction:

Botcraft, a two-day Workshop and Ideathon organized by IEEE-CIS, was held at Amrita Vishwa Vidyapeetham on October 26th and 27th, 2024. Designed to enhance skills in conversational AI, this event focused on building foundational knowledge of Large Language Models (LLMs) and guiding participants on career paths in AI. Attendees could participate individually or form teams of up to four members. The program offered a blend of lectures, hands-on sessions, and an ideathon, enabling participants to explore both the technical aspects of AI and practical implementation strategies.



Agenda:

Day 1: October 26th, Saturday

- 1. 9:30 AM 10:00 AM: Introduction and Welcome Remarks
- 2. 10:00 AM 1:00 PM: Workshop on Large Language Models (LLMs) From Basics to Advanced Chatbot Building
- 3. 1:00 PM 2:00 PM: Lunch Break
- 4. 2:00 PM 3:00 PM: Hands-on Session on Retrieval-Augmented Generation (RAG) Models
- 5. 3:00 PM 4:00 PM: Tech Talk and Career Guidance
- 6. Evening: Release of Ideathon Problem Statements

The first day of the event, held on Saturday, October 26th, commenced with a warm welcome to the speakers and participants. The proceedings began with a traditional lamp-lighting ceremony, symbolizing the auspicious start of the program. Ishvarya G, the Webmaster of the club, introduced the event and set the tone with an insightful overview, followed by heartfelt welcome remarks delivered by Amara Pranay, the Co-

Membership Development Chair of the club. At 9:30 AM, once all the participants had settled, the workshop on Large Language Models (LLMs) began. The session started with an overview of LLMs, including their general concepts and the challenges they face in real-world applications. Gradually, the discussion transitioned to highlight the need for Retrieval-Augmented Generation (RAG) models, setting the stage for an in-depth exploration of their architecture, functionalities, and the problems they are designed to solve.

A lunch break from 1:00 PM to 2:00 PM offered participants an opportunity to network and relax before the afternoon sessions. The event resumed at 2:00 PM with a hands-on session on RAG models. Under the guidance of the speakers, participants engaged in practical exercises, following step-by-step instructions to apply their newfound knowledge. The interactive session fostered a collaborative learning environment. At 3:00 PM, a tech talk was conducted, during which speakers shared valuable career guidance, followed by an engaging Q&A session. This allowed participants to seek clarity on career-related queries and gain insights into navigating the tech industry.

The day concluded with a vote of thanks delivered by Yasasree Lasya, the Vice President of the club, expressing gratitude to the speakers, organizers, and participants for their contributions to the event's success. Mementos were presented to the speakers as a token of appreciation, marking the end of an enriching and productive first day. In the evening, the problem statements for the Ideathon were released, giving participants a challenging task to work on and present their solutions during the following day's session.



Day 2: October 27th, Sunday

- 1. 9:30 AM 3:00 PM: Ideathon Presentations by Participants
- 2. 3:30 PM: Announcement of Winners

On the second day of the Ideathon, participants arrived with their teams, ready to showcase their innovative solutions. The presentations commenced promptly at 9:30 AM, creating an atmosphere of enthusiasm and anticipation.

The panel of esteemed judges for the event included Dr. Manju Khanna, a mentor, Ms. Pooja Gowda, and Mr. Imran Khan, the speaker from the previous day. Each team was allotted approximately 10 minutes to present their ideas, followed by a round of insightful and thought-provoking questions from the judges.

After all the presentations were completed, the judges deliberated on the results. The decision was notably challenging, given the high quality and creativity demonstrated by the teams. Finally, at 3:30 PM, the winners of the Ideathon were announced, receiving well-deserved applause for their exceptional work.

With this, the event came to a successful conclusion, leaving participants and organizers with a sense of accomplishment and inspiration.

Key Takeaways:

The event featured insightful talks by two experienced machine learning engineers: Mr. Imran Khan, Senior ML Engineer at Mercedes, and Mr. Varundatt Tiwari, ML Engineer at CORK, Ireland. Their presentations covered key topics, including the challenges and potential of LLMs, Retrieval Augmented Generation (RAG) models, and their model architecture and functionality. A hands-on session on the RAG model provided participants with direct experience in its practical applications.

Teams pitched their ideas based on the given problem statements, receiving valuable feedback and guidance from the judges on refining their projects.

Participants:

The event attracted a diverse group of 70 participants, organized into 23 teams, who showcased their enthusiasm and innovative ideas in the field of conversational AI.

Conclusion

Botcraft concluded successfully, with certificates awarded to all participants in recognition of their dedication and contributions. The top-performing teams were honored with prizes.

Two teams were awarded first place: Praneel N and team, and Ummadi Vennela Sai and team, each receiving a cash prize of ₹1500 along with Amazon gift vouchers.

Two teams were awarded second place: Gorantla Samhitha and team, and Aryan Gera and team, each receiving ₹1000 in cash prizes along with Amazon gift vouchers.

The event fostered an engaging learning environment and encouraged collaboration among participants, leaving them with practical knowledge and valuable connections in the AI community. It was an inspiring experience that highlighted the power of teamwork and the potential of AI in shaping future careers.





