My Contributions

For the NewsBot 2.0 final project, I contributed directly to Sections 5, 6, and 7 of our Jupyter notebook. These sections formed the technical backbone of our system, covering:

Conversational Interface
System Integration & Testing
Evaluation & Documentation

Section 5: The code I implemented creates an intelligent chatbot that can naturally discuss news. It determines the user's preferences. It finds key details in the user's question, like topics, timeframes, or emotions, and gives a clear, helpful response.

Section 6: The NewsBot system's components are combined in this code to create a potent tool that can read news articles. It can identify the article's main topic first, and then it will summarize its findings

Section 7: The code in the NewsBot 2.0 system's performance in several domains, including user experience. It also offers accuracy, precision, and an F1 score in the output.

Key Challenges and Learning

Determining how to process a large number of news articles rapidly without losing crucial details was one of the most difficult tasks. I acquired the ability to purify text, eliminate superfluous words, and get it ready for a computer to "understand."

Summarizing different types of articles (breaking news, opinion pieces, or feature stories) required different approaches.

Future Improvements and Final Thoughts:

Faster Real-Time Updates: The system can currently handle new articles, but it would respond to breaking news more quickly if it had a live-streaming feed.

More Complex AI Models: Topic detection and summaries may become even more precise with the use of larger, more recent language models.

NewsBot2 demonstrates the potential of technology by organizing and comprehending vast amounts of data. It transforms the deluge of internet news into understandable, practical insights. This project required both technical problem-solving skills and creative thinking to complete. I gained knowledge about the various components of natural language processing.