

# COSC478-24S2 ASSIGNMENT-2/TASK-1

## GenAI Applications Using LLMs

David Ewing

2024.09.11

### **PROPOSAL**

I propose to develop a chatbot using BotPress that leverages two distinct large language models (LLMs), ChatGPT and another LLM, to evaluate and detect potential biases in their responses. The chatbot will allow users to input questions and compare the responses from the two LLMs, identifying differences in framing, tone, or content that may indicate bias. It will demonstrate how BotPress can integrate multiple APIs to offer enhanced functionality.

### **Context for the Chatbot**

The primary context for this chatbot is an initial attempt at academic research in AI ethics and bias detection in language models. Users will typically be researchers, students, or developers who are studying the biases present in AI-generated content. They will use the chatbot to input a range of questions and compare the responses generated by the two LLMs. This can help highlight how different models interpret sensitive or controversial topics, providing insights into inherent biases.

### **Functionality of the Chatbot**

The chatbot will:

- Accept user queries and pass them to both ChatGPT and the other LLM via their APIs.
- Retrieve and display the responses from both models.
- Use bias detection logic to compare the responses, analyzing language, tone, and topical focus to detect inconsistencies and will be pursued from a data science perspective.
- Provide a summary report to the user, highlighting any biases or significant differences between the two responses.

### **Knowledge Bases**

The knowledge bases for this chatbot will consist of the responses from both LLMs and any external APIs that may provide additional data for bias detection, such as sentiment analysis tools or ethical AI guidelines. These resources will allow the chatbot to offer deeper insights into the nature of bias in AI-generated text.