

Module 2: Portfolio Milestone

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For this portfolio project, I will be choosing option #2 and develop a Chatbot using Natural Language Processing (NLP). I have decided that this project will be open-domain, generative bot. The chatbot will be able to have conversations with users and generate human like responses. With the recent “boom” of chatbots over the past couple years, I am excited to develop my own.

Tools and Technologies

I have decided to make this an open-domain to allow for flexibility. Although this approach may be more challenging, it will allow for broader conversations and make the project more useful to a wider audience. I also believe that it will help me build a stronger foundation.

For frameworks, rather than using a seq2seq encoder-decoder model, I will be using a GPT-style model. This will make the conversations seem more natural and free-flowing. Since there are so many GPT style models (e.g. ChatGPT, Gemini, Claude), I believe that using this approach in my portfolio project will give me more industry relevant experience.

I have chosen to develop a generative bot rather than a retrieval-based bot. Much like my other choices, generative bots are more flexible, open-ended, and have more industry relevance.

Plan

The main purpose of this chatbot is for casual interaction with the user and to gain experience. Furthermore, this chatbot will only accept text-based prompts. I plan on using a pre-trained model like GPT-2/3 and use Tensorflow or PyTorch. I would like to experiment with some of these technologies while in the initial stages of development.

Conclusion

I am excited to start developing this project as it will allow me to dive deep into the core of modern conversational AI. The development choices I've made are inspired by the cutting-edge chatbots created by leaders in the artificial intelligence industry. This project will be an exciting opportunity to explore and master the fundamentals of generative language models, enabling me to understand how they power real-world applications while refining my own skills in AI development.