

Student Activity: Exploring AI Language Models and Prompt Engineering (GPT-focused)

Objective: To help students understand AI language models and practice prompt engineering through hands-on activities using GPT.

Estimated Time: 30-45 minutes

Setting up ChatGPT Environment

1. **If You Have an Account:**
 - Go to <https://chat.openai.com/>.
 - Click on **Log In**.
 - Enter your email and password, or use your Google account if you signed up that way.
 - Once logged in, you will be redirected to the ChatGPT interface.
 2. **If You Don't Have an Account:**
 - Click on **Sign Up**.
 - Follow the instructions to create a free account using your email or Google account.
 - Once you've created your account, you will be redirected to the ChatGPT interface.
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1. Understanding AI Language Models

Activity 1: Exploring GPT

Instructions:

1. **Task:** Use an AI language model like GPT to generate text based on different prompts.
2. **Example Prompts:**
 - "Write a short story about a day in the life of a cat."
 - "Explain the process of photosynthesis in simple terms."
 - "Generate a poem about the ocean."
3. **Practice:** Students should input these prompts into an AI tool and observe the generated responses. Discuss how the AI continues the text based on the given input.

2. Introduction to Prompt Engineering

Activity 2: Crafting Effective Prompts

Instructions:

1. **Task:** Practice designing prompts to get specific and useful responses from an AI model.
 2. **Example Prompts:**
 - Poor: "Tell me about animals."
 - Improved: "Tell me about the habitat and diet of polar bears."
 - Poor: "Explain technology."
 - Improved: "Explain how smartphones have changed communication in the last decade."
 3. **Practice:** Students should try creating their own prompts and test them with an AI model. Discuss the differences in responses based on prompt specificity.
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Activity 3: Providing Context in Prompts

Instructions:

1. **Task:** Learn how providing context in prompts can improve AI responses.
 2. **Example Prompts:**
 - Without Context: "Describe the event."
 - With Context: "Describe the event of the first moon landing in 1969."
 - Without Context: "Write a story."
 - With Context: "Write a story about a young girl who discovers a hidden talent for painting."
 3. **Practice:** Students should experiment with adding context to their prompts and observe how it influences the AI's output.
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3. Applying AI Language Models and Prompt Engineering

Activity 4: Real-World Applications

Instructions:

1. **Task:** Explore real-world applications of AI language models using prompts.
2. **Example Applications:**
 - Customer Support: "Generate a response to a customer asking for a refund due to a defective product."

- Content Creation: "Create a blog post outline about the benefits of meditation."
 - Education: "Explain the concept of gravity to a 10-year-old."
3. **Practice:** Students should choose one application and create prompts to see how AI can assist in that field. Discuss the effectiveness of AI in these scenarios.
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Conclusion

This activity aims to provide students with a practical understanding of AI language models and the significance of prompt engineering using GPT. By engaging in these exercises, students will gain hands-on experience and develop skills to effectively interact with AI tools.

Encourage students to continue experimenting with different prompts to deepen their understanding of AI capabilities.
