



Capstone Project: Artificial Intelligence is All Around Us

Overview

In this final activity, students use the new knowledge about Artificial Intelligence learned in Modules 1-4 to complete a Capstone Project. This project demonstrates students' proficiency and understanding of the concepts learned in these modules. There are several options to choose from below.

Challenge options:		Timing
Project Challenge:	Students decide how adding AI to a current project for another class can enhance their project	2 - 3 classes
Design League Students:	Design League students aim to add AI to enhance their current Design League Project	2 - 3 classes
Class Discussion:	How can students utilize AI to enhance a project they are currently working on for another class?	1 class

1. Project Challenge

In this challenge, students are tasked with enhancing a project they are working on for one of their current classes by integrating either generative or non-generative AI.

“How can students utilize either generative or non-generative AI to enhance a project they are currently working on for another class?”

- Students will identify the specific goals and requirements of their existing project and then determine how AI could be used to improve or add value to the project.
- Students will consider the potential benefits and limitations of using generative AI versus non-generative AI, and whether or not their project would need generative or non generative AI.
- Students will decide whether the AI they will be using to enhance their projects will require machine learning/training.
- Students will describe how they would implement their choice of AI model into their current project, their selection of AI tools and why they chose this AI model, and the ethical considerations involved in using AI for their project.
- Students will showcase how the AI is implemented, as well as the impact of choosing to integrate AI on the overall outcome of their project by generating a presentation to demonstrate their knowledge.

2. Design League Students

In this Design League Challenge, students are tasked with solving a pressing issue in their community using artificial intelligence.

- Students will determine whether to use non-generative AI or generative AI to tackle the community issue they would like to solve.
- Students will consider the complexities and specifics of the problem, and discuss the ethical and practicalities of the types of AI's they could use to solve this issue.
- Students will discuss how the training of AI models might impact the effectiveness of their solution, and whether or not it is needed in their solution to their problem.
- Finally, students will add in and explain AI into their Design League project. They will describe how their choice of AI model will benefit the solution for their community issue they are solving in this challenge.

3. Class Discussion

Discuss the following questions with your students. Spend time discussing each question whole group, or in small groups. This can also be used as a written reflection. Considering the specific goals of your project, what are some potential AI models that you could use to improve or add value to the project?

What are the advantages and limitations of using generative AI versus non-generative AI in this context?

- How would you go about selecting and implementing the most suitable AI tools for a project?
- What ethical considerations would need to be addressed when integrating AI into a project?
- When considering the best AI model for a project, would it require machine learning/training or not?
- How might the integration of AI impact the overall outcome of your project, and what challenges and opportunities do you anticipate could happen in this process?