AI Project

Students will, individually or as teams of two, present in class about either:

a. An application that uses AI techniques we have studied (research project), or
b. A textbook topic that we have not covered (textbook project).

Grading will be based on planning, research, documentation, and presentation. Students will also receive credit for providing reasonable assessments of the work of their peers. Further details are provided below.

Research Project (Maximum 90%)

1. Research planning phase, 20%: Students will submit
    a. Name of team member, if any
    b. Specific AI application to be researched
    c. Preliminary findings regarding AI technique(s) we have covered that support the application (must be at least one)
    d. List of resources to be used, which can include the textbook but must also include at least two reasonably-authoritative resources beyond the textbook.
2. Research and documentation phase, 50%: After receiving approval for the research plan, students will carry out detailed research and submit a presentation that they expect could be given in 15 to 20 minutes that describes
    a. Application problem to be solved, in enough detail to understand how AI might apply
    b. AI solution to the problem:
        i. AI techniques used as part of the solution
        ii. Modifications/enhancements to any techniques we have studied
        iii. At least an overview of any techniques used that we have not studied.

    If the slides are not sufficiently detailed (e.g., mathematical formulas are very simplified), an informal report supplying additional details might be required.
3. In-class presentation, 20%: After receiving approval of the presentation, students will present their research to the rest of the class during the last regular class meeting.

Textbook Project (Maximum 70%)

1. Topic identification phase, 10%: Student will submit
    a. Name of team member, if any
    b. Specific sections of the textbook to be studied
    c. Relationship between the sections and topics covered in the course.
2. Research and documentation phase, 40%: After receiving approval for the research plan, students will carry out detailed study of the textbook material and submit a presentation that they expect could be given in 15 to 20 minutes that includes
    a. Brief review of related material covered in class
    b. Presentation of the new material.
3. In-class presentation, 20%: After receiving approval of the presentation, students will present their research to the rest of the class during the last regular class meeting.

Peer Assessment (Maximum 10%)

For all presentations except their own, students will comment on

1. Clarity of presentation
    a. Connection with AI techniques covered in the course
    b. New material
2. Depth of understanding conveyed by the presentation
3. Degree of connection between the presentation and course topics