Extra Credit Research Project
Artificial Intelligence

Overview
The purpose of the research project is to encourage students to expand their knowledge of AI beyond what is presented in class. By expanding on a concept covered in class or by studying another subject, it is hoped that students will appreciate the wide range of applications for artificial intelligence in games and elsewhere. The amount of work put into a research project should be comparable to our lab projects.

Selecting a Topic
Below is a list of possible projects you may choose to do as a research project. If there is another AI topic you would like to research, please check with me. If you have questions, please feel free to ask me and I will provide you with any information / demonstration code I have, tell you where to find more information, and/or provide guidance. This project's purpose is learning and demonstration of knowledge; it doesn't need to be particularly amazing to get credit for completion. ***Students must use library resources (books, games, etc) in the development of their research projects.*** Some suggestions:

· HPP implementation
· Planner that uses a "NavMesh"
· Node mesh with pre-planning data stored in a table
· Planner for a single person game such as 8-puzzle
· Rule Based System (forward/backward chaining)
· Fuzzy Logic Rule Based System
· Multi-layer Neural Network
· Mini-game based on a topic covered in class
· Any AI related project you are interested in that is related to your gaming project

Submission
Students must include a README file briefly explaining (in 1-3 paragraphs) what the project was and what was accomplished. All sources you use should also be cited in this document. Otherwise, the project should be submitted as any other lab would be. Please follow the naming convention and submit your project on Sidekick to the "Extra Credit" assignment.