# *Chess Variant AI Project*

## Advanced Chess with Fantasy Elements

**Section: BCS-6J**

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**Abstract**

For this semester, the instructor assigned the concept of board games for an artificial intelligence project. Chess was chosen due to the complexity and varying nature of the pieces it offers in contrast to checkers. The project will utilize an 8×8 board with added constraints of obstacles and pawns with unique features, such as the ability to teleport, rain fire, and the concept of the board being an island surrounded by naval ships which activate on certain incentives. The inspiration for added constraints was taken from Gwent, a card game inside Witcher 3.

**Insight**

This project is crucial for learning and implementing AI concepts covered throughout the semester.

**Approach**

The graphical aspect will be handled using the chess.com API, while the backend logic will be implemented manually. Python will be used for marking this project.

**Feasibility**

* No finances required
* Development environment: VS Code
* Hardware requirements: At least quad-core processor and 8GB RAM for smooth program execution
* Will implement reinforcement learning as well as minimax for adversarial search (a game theory algorithm)