

# CSCI 446 Artificial Intelligence

## Project 2 Design Report

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## 1 INTRODUCTION

*Logic and the Wumpus World* is an artificial intelligence problem first proposed by Michael Genesereth, and described in detail by his student Stuart Russel[1].

## 2 PROBLEM STATEMENT

## 3 SOFTWARE DESIGN

The design of our software is centered around the environment engine. This class ervers to link all components of the program, while

### 3.1 WUMPUS WORLD GENERATION

We will implement a class

### 3.2 ENVIRONMENT ENGINE

### 3.3 REASONING AGENT

#### 3.3.1 INFERENCE ENGINE

### 3.4 KNOWLEDGE BASE

### 3.5 PATHFINDING

### 3.6 REACTIVE AGENT

## 4 EXPERIMENT DESIGN

To analyze the performance of our agents, we are asked to vary various parameters of the wumpus World. These parameters include: the size of the board, and the number of wumpi, pits, and barriers.

## REFERENCES

- [1] Stuart Russel and Peter Norvig. *Artificial Intelligence: A Modern Approach*. Pearson Education, 3rd edition, 2010.