

## **Overview**

Out of all the areas in AI to choose from, I found expert systems to be most interesting. I relish the idea that someone can go to a computer and get an answer to a question on a topic that only a topic expert would be able to answer. My initial intention was to complete a survey paper on some area within expert systems. As I read more about it I realized that I am more interested in actually trying to build an expert system than write a paper about it. Having briefly read the appendix information on CLIPS in Peter Jackson's book on expert systems [1], I realized that I wanted to try CLIPS for myself.

## **Proposal**

I propose a programming project where I will build an expert system using CLIPS. Specifically, I will build a golf caddie expert system called CADDIE to learn about expert systems and demonstrate CLIPS. Given a set of inputs, CADDIE will tell you what club to use and how much power to use when swinging the club.

I feel that CADDIE represents a nice balance in that it is not overly complicated yet will require a non-trivial application of CLIPS to accomplish its intended goal.

Ultimately, I will build CADDIE using CLIPS, which I will demonstrate for my class presentation. I am a golfer with an above average knowledge of the game. I can be my own knowledge expert when building this expert system. If time permits, I will also write a paper presenting CADDIE, which will include the interesting details about expert systems that I used in CADDIE.

## **Additional**

After having read a few pages in Peter Jackson's book on expert systems [1], I have also realized that there is a lot to know about expert systems. In fact, I believe there are several different approaches on how I could build CADDIE. By completing this project, I will have had to gain an intimate knowledge of Expert Systems to be able to figure out a best approach to building CADDIE. I feel that a paper would not force me to gain this same level of understanding.

## **Schedule, Materials, and Supplies**

According to Peter Jackson's book [1], CLIPS is available at no cost. I can download and install CLIPS on my own Linux machine. I have ten weeks to accomplish the building of CADDIE. I would plan on spending the first one-third of the time remaining learning about expert systems, mostly from Peter Jackson's book. I would spend the last two-thirds of the time remaining building CADDIE. I know this is a very rough outline of a schedule but I think it captures the right idea.

## **References**

[1] Jackson, Peter. *Introduction to Expert Systems*. England: Addison Wesley Longman Limited, 1999.