Reinforcment Learning for Blackjack

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***Abstract*—This document is a model and instructions for LaTeX. This and the IEEEtran.cls file define the components of your paper [title, text, heads, etc.]. *CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.**

***Index Terms*—Blackjack, Reinforcement Learning, Monte Carlo**

I. Introduction

1) Blackjack was solved by Edward Thorb in 1960 and by numerous Reinforcement Learning papers since then (Establishing Research Area)
2) To my knowledge the does not focus on ¡Insert my variations¿ (Establising a Niche)
3) To investigate this area, I ¡Insert my approach¿ (Occupying the Niche)

II. Methods

A. The game of Blackjack

1) Basic Description of the Game
2) State Spaces (Math)
3) Actions (Math) (Doubling Down, Hitting, Splitting, ...)
4) Which Actions do I permit in my implementation? and why?

B. Reinforcement Learning method - Monte Carlo

C. ¡Insert my variations¿

III. Results

A. ¡Insert First Variation¿

B. ¡Insert Second Variation¿

IV. Discussion

V. Conclusion

References

[1] G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955.