

Reinforcement 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 Thorp 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; (Establishing 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.