LEARNING CHESS BLINDFOLDED

ABSTRACT

Can a language model trained purely on text-encoded chess games and without any prior knowledge of the game i.e. *learning blindfolded*, understand the rules/dynamics of chess? How do we evaluate the chess understanding of such a language model? And finally, how does access to the latent chess board state enhance/accelerate this understanding? To this end, we train transformer-based language models with varying amount of training data and board state access. For evaluation we propose a suite of cloze tasks that test the board state tracking capability of these models.

1 INTRODUCTION

2 MODEL AND MODEL VARIANTS

2.1 RANDOMLY ANNOTATED PIECETYPE (RAP)

2.2 MULTIVIEW TRAINING

2.3 ORACLE GROUNDING

3 EXPERIMENTAL SETUP

3.1 TRAINING DETAILS

3.2 LANGUAGE MODELING DATA

4 CLOZE TASKS

4.1 END POSITION

4.1.1 ACTUAL MOVE

4.1.2 OTHER MOVE

4.2 START POSITION

4.2.1 ACTUAL MOVE

4.2.2 OTHER MOVE

5 RESULTS

6 RELATED WORK