

## Project Title

ULVI BAJARANI, The University of Texas Rio Grande Valley: Department of Information Technology

ASKAR NURBEKOV, The University of Texas Rio Grande Valley: Department of Interdisciplinary Studies in Science and Technology

DANIEL ORTIZ, The University of Texas Rio Grande Valley: Department of Computer Science

CARLOS ESPINOSA, The University of Texas Rio Grande Valley: Department of Information Technology

MARIANA MARTINEZ, The University of Texas Rio Grande Valley: Department of Computer Science

Games such as chess where there needs to be two players, can become a problem when there isn't a second person available to play as we have seen in these times of isolation due to COVID-19. Inspired by other robotic chess playing agents, we propose a portable, with less additional equipment robot using an ubiquitous approach to the board as well as offering an expansion for other board games and a coaching component.

Key Words: Artificial Intelligence, robotics, image processing, computer vision

## INTRODUCTION

Test [CW19] Test2 [Rat+19]

## PROPOSED METHODS

## ANTICIPATED RESULTS

## REFERENCES

- [CW19] Andrew Tzer-Yeu Chen and Kevin I-Kai Wang. "Robust computer vision chess analysis and interaction with a humanoid robot". In: *Computers* 8.1 (2019), p. 14.
- [Rat+19] Prabin Kumar Rath et al. "Autonomous Chess Playing Robot". In: *2019 28th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*. IEEE. 2019, pp. 1–6.