

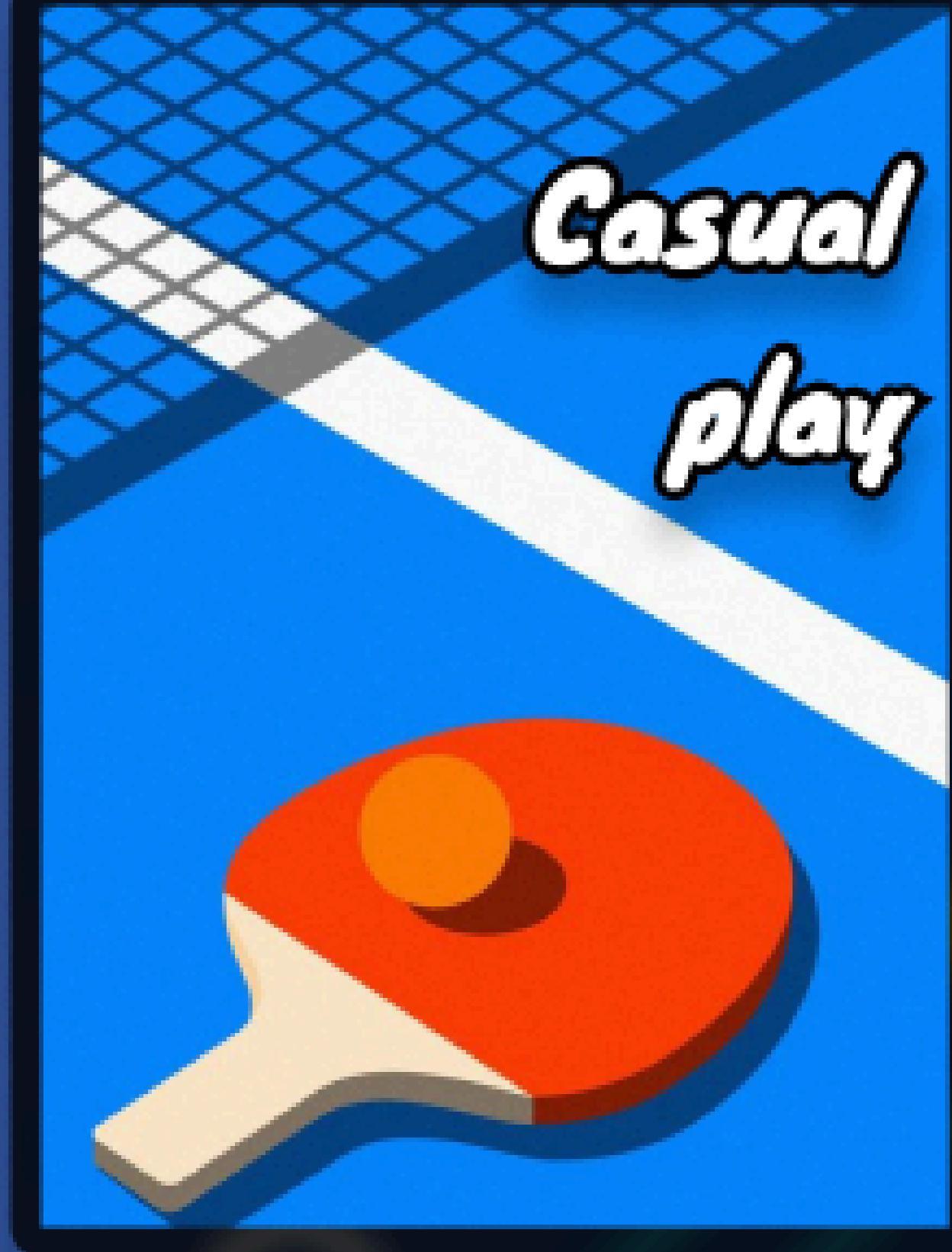
GROUP PROJECT

by Vertex Group





**Competetive
play**



**Casual
play**

Number of players

— — ✓

CONTINUE



Player 1

Player 2

Player 3

Player 4

Semi 1

Semi 2

Champion



Home Visitor

0 0 0 0

银河集团
Galaxy Entertainment Group

红双喜
DHS



W WTT

W WTT

W WTT

W WTT

WTT



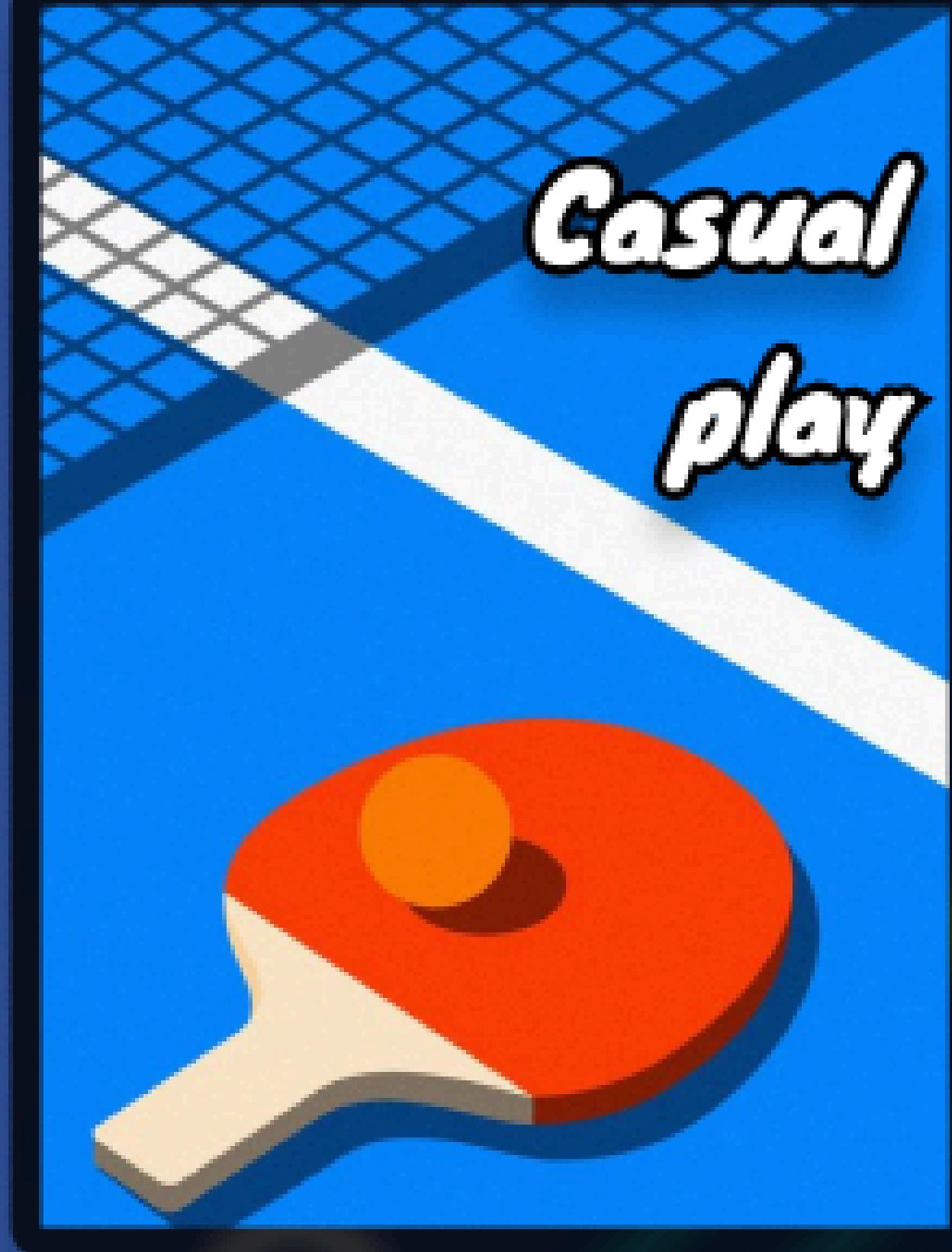
银河娱乐集团
Galaxy Entertainment Group

乐动体育
LD SPORTS





**Competetive
play**



**Casual
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Home Visitor

0 0 0 0

银河集团
Galaxy Entertainment Group

红双喜
DHS



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银河娱乐集团
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乐动体育
LD SPORTS



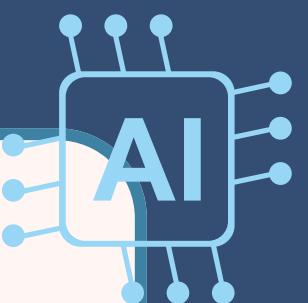
Our vision statement

bot will serve as an impartial referee, accurately scoring points and ensuring fair play in high school table tennis tournaments, and at home. We aim to play fair with other individuals to achieve equity in ping-pong games .



PROJECT OVERVIEW

we are making the ref job
more easier with A.I assistant



we trying to make table
tennis game-play smoother
with accessible for every
one



Approaches

COMPUTER VISION-BASED APPROACH

Utilize computer vision algorithms for real-time ball tracking, segmenting the ball from the background and detecting interactions with the table and net.

MACHINE LEARNING-BASED APPROACH

Train deep learning models to recognize and track the ball, employing CNNs for feature extraction and reinforcement learning for trajectory prediction and point calculation.

SIMULATION-BASED APPROACH

Utilize simulation software for virtual table tennis dynamics, enabling accurate ball tracking and interaction detection with the table and net, while algorithms interpret movements and calculate points according to the rules.

OBJECTIVES

MAIN OBJECTIVE

- Provide new technologies to all sport fans with easy access

MAIN OBJECTIVE

- Create a new way to watch event and competition matches

S W O T

Weaknesses

- the lack of experities in the technologie
- Limited resources available

Threats

- resistance of change
- Referee Job Replacement

Strengths

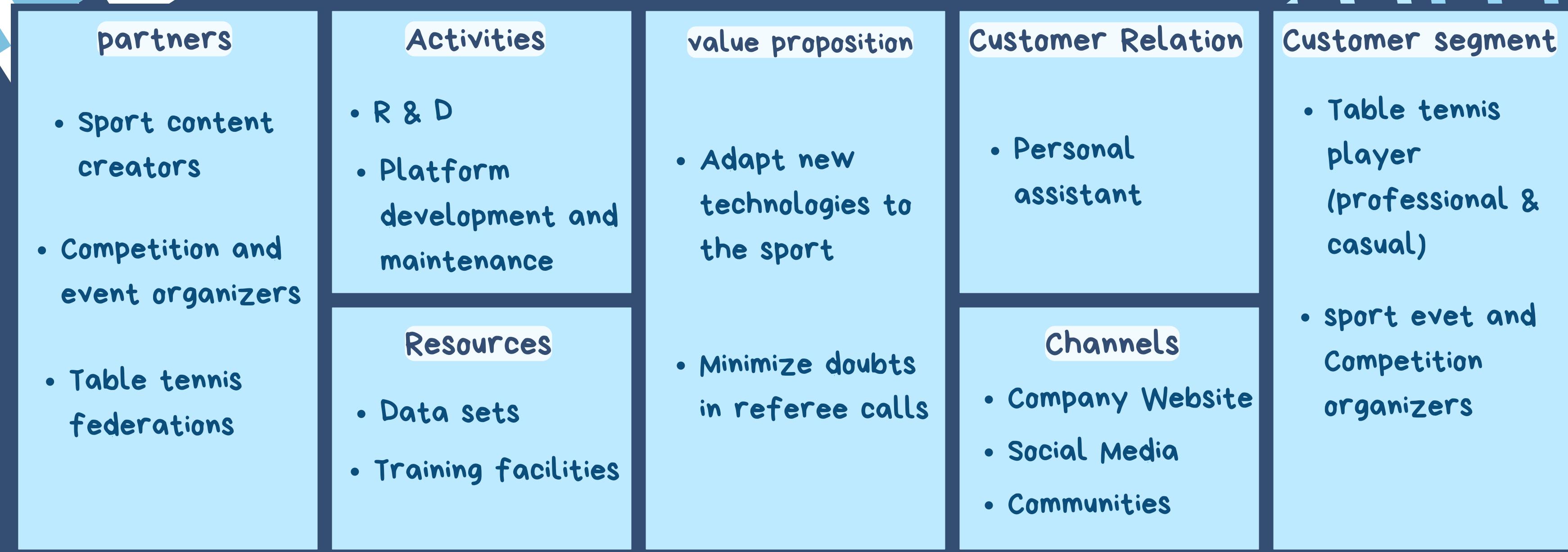
- user-friendly
- efficiency

Opportunities

- extend the idea to other sports
- game play analyses



B M C



Financial feasibility study

- Premium subscription(2\$ to 15\$)
- Donations
- Website hosting costs (3\$/month)
- Development costs (0\$ to 30\$)



Technical feasibility study

roboflow

Streamlining
computer vision
workflows from
data management to
model deployment.



An open-source tool
simplifying image
annotation for
object detection
model training.



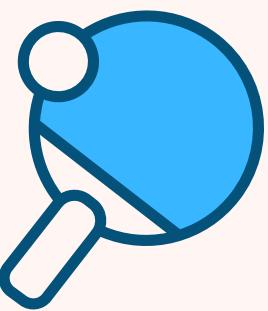
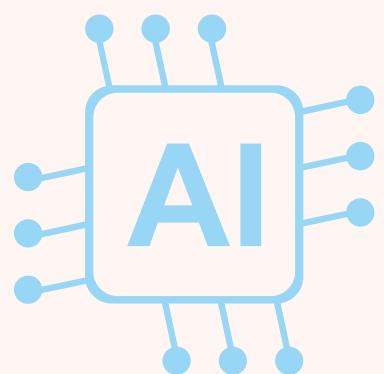
ultralytics
YOLOv8

Fast and accurate
real-time object
detection
framework.

CONCLUSION

In closing, AI Referee technology presents a transformative opportunity for sports officiating, offering unprecedented accuracy and efficiency. With its robust business model and promising market potential, it signifies a new era in sporting experiences. Let us embrace this innovation with enthusiasm, poised to revolutionize the way we play and watch sports.

Prototype



Get table tennis action 24/7 at your fingertips



Now Available on



全新WTT世界乒联微信小程序



水井坊·第一坊
2 0.91

1 0.48 奥地胶

0 0.37

DOO HOI KEM 1 7
ADRIANA DIAZ 1 7

百岁山
Ganten

中国建设银行
China Construction Bank



THANK YOU

by vertex Group



OUR TEAM



Haroun Rhim



Mouin Hizem