

# Bot Automation – An Artificial Intelligent Navigator

<sup>[1]</sup> Dr.R.Kavitha, <sup>[2]</sup> Areef Syed, <sup>[3]</sup> Karan Kuamr Chettri

<sup>[1]</sup> Assoiate Professor, Dept of CSE, BIHER, Chennai.

<sup>[2]</sup><sup>[3]</sup> UG Student , Dept of CSE, BIHER, Chennai.

*Abstract: This paper aims in developing a Bot that could intelligently navigate around the map of a given game and play as a real player, it would be processed with the same scenarios as a real time player would play and with the help of machine learning it would make its way out towards specific check points resulting in completion of any provided task. Bot with addition to some other features would be able to judge the game rapidly and will be able to learn from its previous mistake and would bound to not repeat them in the series of future trials. This will make the human competing against the Bot to change his moves and develop himself to tackle better against the bot..*

**Keywords-Counter Strike, Python, OS, OpenCv, Pandas, Tensor Flow..**

## I. INTRODUCTION

Computers are considered highly precise dumb machines[1,2,3] that can do any task with high accuracy and precision but cannot learn from its previous mistakes. In similar conditions, it would repeat the same mistakes again even when an easy and obvious solution is just ahead of them. This is a problem in competitive games [4,5,6] like counter strike where the only objective of any player is to beat other player in the game. The bots[15,16,17,18] in game are not learning from their mistakes and make the same mistake again and again. This makes the whole gameplay robotic[7,8,9,10] and the sense of competitiveness vanishes, which leads to losing interest in the game. The main focus of Bot[19,20,21,22] is to create a bot that can mimic the gameplay of a real player. The bot will learn from its previous mistakes, game style of the player, different scenarios and situations and then apply those to improve its own game. This will force the other player to change their style and tactics to beat the ever evolving bot which will keep up his interest in the game. The end goal is to have a bot that can create its own tactics to win the game and can compete and beat even the best of CSGO players[11,12,13,14].

## II. EXPERRIMENTAL DETAILS

\* Screen Capture and Recognition:

The bot takes input in the form of screen capture from the window of the game in play. It then processes the image received to get the relevant data, like - maps, player location, places where enemy was spotted, teammate location on the map, etc. It then feeds those relevant data to the Game plan Generator.

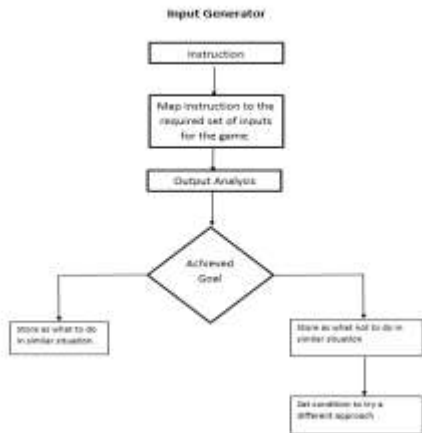
\* Game plan Generator:

It is in essence, the brain of the bot. It takes the input received from the SCR module and tries to match it to similar situations it previously encountered and take the same course of action if the decision taken then resulted in victory. Else, it will decide to take a different approach which has the best possibility of winning.



### III. INPUT GENERATOR:

The game plan that is generated needs to be executed. Input generator creates a sequence of input that it feeds to the game to execute the game plan.

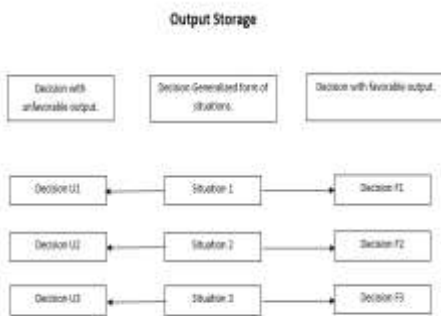


#### Output Analysis:

Once the input is fed to the game, this module will check the result of the action taken, whether it produced the required output or not. If yes, it will be taken as a point of reference as to what action to take if similar situation arises. If no, it will be taken as a point of reference to what action to avoid in a similar situation.

#### \* Output Storage:

The output resulting from the action taken is then stored for future reference. It will then be analysed to provide the course of action to take if similar situation is encountered previously.



### IV. CONCLUSION

Having required software and hardware, Bot can work perfectly in CSGO. It will learn how to play by examining the opponents moves and will put it into act; If those tactics doesn't work then it would try other tactics until it succeeds. After imitating all the opponent's moves, Bot would be able to beat humans, and this would force us to update our moves helping both the beings evolve.

**REFERENCES**

1. Kavitha, R. Shelgin, S., Sandeep, S. "A study on vulnerability detection of attacks in web security",2017,International Journal of Pure and Applied Mathematics,Volume 116,10 Special Issue, Page No: 9-12
2. Kavitha, R., Priya, N., Anuradha, C., "Li-Fi science transmission of knowledge by way of light",2017, International Journal of Pure and Applied Mathematics, Volume 116,9 Special Issue, Page No:285-290
3. Kavitha, R.,Priya, N., Anuradha, C., "A novel approach of hybrid cloud",2017, International Journal of Pure and Applied Mathematics, Volume 116, 9 Special Issue, Page No:299-304
4. Kavitha, G., Kavitha, R., Koushik Subramaniam, Y. "Operating scheme and its shield in mobilephone by utilizing android",2017,International Journal of Pure and Applied Mathematics,Volume 116, 9 Special Issue, Page No:129-133
5. Kavitha, R., Kavitha, G."Deconstructing evolutionary programming using ghat",2017, International Journal of Pure and Applied Mathematics,Volume 116,10 Special Issue, Page No:213-216
6. Kavitha, R., Kavitha, G., Thakur, K.A. "Helmet mounted heads-up display a rider assistance smart helmet for everyone",2017,International Journal of Pure and Applied Mathematics, Volume 116,8 Special Issue, Page No:411-413
7. Priya, N., Pothumani, S., Kavitha, R,"Merging of e-commerce and e-market-a novel approach",2017,International Journal of Pure and Applied Mathematics,Volume 116, 9 Special Issue,Page No:313-316
8. Priya, N., Anuradha, C., Kavitha, R" Analysis of various data mining clustering algorithms",2017,International Journal of Pure and Applied Mathematics,Volume 116, 9 Special Issue,Page No:279-281
9. Kavitha, S., Kavitha, R."DDOS attack and defenses",2017,International Journal of Pure and Applied Mathematics,Volume 116,9 Special Issue,Page No: 57-61
10. Kavitha, R., Kavitha, G.,"Decoupling byzantine fault tolerance from multi-processors in I/O automata",2017,International Journal of Pure and Applied Mathematics,Volume 116,10 Special Issue,Page No:225-228
11. Kavitha, R., Kavitha, G."A development of IPV4 with skilty approach",2017, International Journal of Pure and Applied Mathematics,Volume 116,10 Special Issue, Page No:219-222
12. Shelgin, S., Kavitha, R."A cram on bluejacking by OBEX (Object exchange)", Volume 2017, International Journal of Pure and Applied Mathematics,Volume 116,9 Special Issue, Page No:441-445
13. Shelgin, S., Kavitha, R., Sudha, K.L."Identifying credit card fraud using biometric fingerprint techniques",2017,International Journal of Pure and Applied Mathematics,Volume 116,9 Special Issue, Page No: 447-451
14. Kavitha, G., Kavitha, R., Jennifer, S. "Effectual exploit of digital irrigate techniques to afford cloud safety marking",2017,International Journal of Pure and Applied Mathematics, Volume 116,8 Special Issue,Page No:185-189
15. Kavitha, R., Kavitha, G., Ramya, B."Inpatient monitoring for healthcare data using wireless sensor network",2017,International Journal of Pure and Applied Mathematics, Volume 116,9 Special Issue, Page No:345-350
16. Kavitha, R. "A methodology for improving read-write technologies for dhTs",2017, International Journal of Pure and Applied Mathematics, Volume 116,8 Special Issue, Page No:93-97

17. Priya, N., Pothumani, S., Kavitha, R.”Analysis of data mining using social network”, 2017,International Journal of Pure and Applied Mathematics,Volume 116, 9 Special Issue, Page No: 307-310
18. Shelgin, S., Kavitha, R.”A study on web application security state”,2017,International Journal of Pure and Applied Mathematics, Volume 116,9 Special Issue, Page No:75-78
19. Priya, N., Anuradha, C., Kavitha, R.”Analysing storage and processing in enhanced cloud computing with hadoop “, 2017, International Journal of Pure and Applied Mathematics,Volume 116,9 Special Issue,Page No:293-296
20. Kavitha, G., Kavitha, R.,Indhu.G, “Big Data, Cloud, Web of Thing in Healthcare Monitoring Scheme”, 2017, International Journal of Pure and Applied Mathematics, Volume 116,8 Special Issue, Page 177-182
21. Kavitha, R., Kavitha, G., “Fuzzy, probabilistic algorithms for online clustering algorithms”,2017, International Journal of Pure and Applied Mathematics,Volume 116,10 Special Issue, Page No:207-211
22. Shelgin, S., Kavitha, R., Balasubhakar,”A comparative study on 5g mobile wireless technology”2017,International Journal of Pure and Applied Mathematics, Volume 116, 9 Special Issue,Page No:81-85

