

Using Starcraft 2 Player Data to Predict Rank

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In the large Esports landscape, Starcraft 2 is one of the earliest players, and one of the most persistent. Released in 2010, the first Starcraft 2 competition occurred prior to release in the beta testing of the game, as it was a follow up to the wildly popular Starcraft, which already had a history of esports since the early 2000s. Up to now, it has hosted 1970 players, in 5569 tournaments, awarding over 31 million dollars in prize money, making it the 5th largest Esport of all time. For that reason, player development is a must for many of the teams around the world, from the Korean giants attempting to maintain their dominance, to foreign underdogs trying to unseat the giants.

Teams can use the information garnered from this analysis to train current players in the skills necessary for success in the higher levels of the game as well as analyze potential up and coming players for their likelihood of being successful at the competitive level. This gives another parameter in the interview process, and gives quantifiable information about players more meaning to investors, to help support current players on a team.

The data being used was acquired by Mark Blair, Joe Thompson, Andrew Henrey and Bill Chen from Simon Fraser University on September 20, 2013. It was aggregated using screen movements into screen-fixations based on the 2000 paper from Salvucci & Goldeberg. It has been made publically available via the UCI Machine Learning Repository. The data contains just over 3000 observations on 35 columns.

In order to predict the level of play of certain players (league status), many of the factors in the data set will be modelled, namely ones related to hours of play, hotkey usage, and actions in game. Other variables in the data set will be considered as well for their possible correlation to the league status of players. This league status will be predicted using modelling and machine learning techniques in order to better aid in understanding the skills players need to succeed.

After the analysis is complete, all code will be provided, as well as an in depth write up of the results, and a presentation suitable for presenting the results in a professional setting.