

Summary of Data Analytics for the Coaches

Throughout the weekend of December 10th and 11th, the PVTO Data Analytics Team was responsible for collecting basketball statistics. For this year's tournament, we utilized a software called TurboStats, a program that allowed us to manually enter game statistics in real time. After each game, Turbostats was able to create a comprehensive box score along with the game breakdown. From previous years, this was a massive improvement since there was accessibility to box scores for everyone immediately after the game. Using the external software in Turbostats, this allowed our team to expand beyond previous years as we can now cater to the teams and coaches with different data visualizations. We were able to extract the data from the website and also add other important statistics that were not on the website with ease. We were also able to create scouting reports for each of the participating teams, in which they can use this feedback to make decisions on what they need to improve on for the rest of the season.

To make it easier to analyze, we extracted and cleaned the data from Turbostats. The purpose of this process is to make it easier for our team members to create the different data visualizations along with the team scouting reports. To gather this data, we had to scrape it from the website using a programming language called Python. We were able to use some tools within the programming language to help format the data into a cleaned Excel workbook, which consisted of all of the players and the teams that participated in the showcase. Having this dataset on hand, we were able to use this data and create some visualizations along with scouting reports to aid the teams on what they did well and what could be improved from what we saw in the PVTO.

In addition to cleaning the data and creating visualizations, the team worked hard to produce scouting reports for each game. These reports are not a traditional player scouting report, but rather, they focus on the team as a whole while periodically highlighting certain players. Using all of the collected data and video footage from the tournament, our team members were able to identify strengths and weaknesses of each team. Additionally, team members wrote general game notes and recommendations, with the idea that they can be optionally utilized by participating programs. This is the first time that the PVTO Data Analytics Team has written scouting reports in the decade-long history of the showcase. If they are received well by our participating programs, we hope to continue writing them in future years.