Advanced Skill Certificate in Online Gaming Analytics

Gaming Data Visualization

A/B Testing

A/B testing, also known as split testing, is a method of comparing two versions of a product or page to determine which one performs better. This is typically done by randomly showing users either version A or version B and measuring the impact on a specific goal, such as click-through rate or conversion rate. The results of the test can then be used to inform decisions about which version to use going forward.

Bar Chart

A bar chart is a type of chart used to compare data across different categories. It consists of rectangular bars, with the length of each bar representing the value of the category it represents. Bar charts can be organized horizontally or vertically and are often used to compare data between multiple groups.

Box Plot

A box plot is a type of chart used to visualize the distribution of data. It consists of a box, which shows the range of the middle 50% of the data, and "whiskers" that extend to show the minimum and maximum values. Box plots can be used to compare the distribution of data between multiple groups and can help to identify outliers and skewness in the data.

Data

Data is any information that can be collected and analyzed. It can take many forms, including numerical, textual, and visual. In the context of gaming, data can include information about player behavior, game performance, and in-game transactions.

Data Analysis

Data analysis is the process of examining and interpreting data in order to extract insights and make informed decisions. This can involve cleaning and preparing the data, applying statistical methods, and creating visualizations to help communicate the results.

Data Visualization

Data visualization is the process of creating graphical representations of data in order to make it easier to understand and interpret. This can include charts, graphs, and other types of visualizations that help to highlight patterns, trends, and relationships in the data.

Distribution

Distribution refers to the way in which data is spread out. It can be described using measures such as mean,

median, and mode, as well as measures of dispersion such as range and standard deviation. Understanding the distribution of data is important for making sense of the data and identifying any patterns or trends.

Heatmap

A heatmap is a type of data visualization that uses color to show the intensity or frequency of data. It is often used to show the distribution of data points over a two-dimensional surface, with darker colors indicating higher concentrations of data.

Histogram

A histogram is a type of chart used to show the distribution of continuous data. It consists of rectangular bars, with the width of each bar representing the range of values it covers and the height representing the frequency of those values.

Line Chart

A line chart is a type of chart used to show trends over time. It consists of a series of data points connected by a line, with the x-axis typically representing time and the y-axis representing the value of the data.

Mean

The mean (also known as the average) is a measure of central tendency that calculates the sum of a set of data and divides it by the number of data points. It is sensitive to outliers and is best used when the data is approximately symmetrical.

Median

The median is a measure of central tendency that finds the middle value of a set of data when it is arranged in order. It is resistant to outliers and is best used when the data is skewed or has extreme values.

Mode

The mode is a measure of central tendency that finds the value that occurs most frequently in a set of data. It can be used for both numerical and categorical data.

Pie Chart

A pie chart is a type of chart used to show the proportion of different categories in a dataset. It consists of a circle divided into slices, with the size of each slice representing the proportion of the total that each category represents.

Range

Range is a measure of dispersion that calculates the difference between the highest and lowest values in a set of data. It is sensitive to outliers and is best used when the data is approximately symmetrical.

Scatter Plot

A scatter plot is a type of chart used to show the relationship between two variables. It consists of a series of data points plotted on a graph, with one variable represented on the x-axis and the other on the y-axis.

Standard Deviation

Standard deviation is a measure of dispersion that calculates the average distance of data points from the mean. It is resistant to outliers and is best used when the data is approximately symmetrical.

Statistical Significance

Statistical significance is a measure of the likelihood that a difference or relationship between two sets of data is not due to chance. It is typically expressed as a p-value, with values below 0.05 often considered statistically significant.

Trend

A trend is a pattern or direction in which data is moving over time. It can be identified using visualizations such as line charts and can be used to make predictions about future behavior.

Variance

Variance is a measure of dispersion that calculates the average of the squared differences between each data point and the mean. It is sensitive to outliers and is best used when the data is approximately symmetrical.

Word Cloud

A word cloud is a type of data visualization that uses the size and font of words to show the frequency or importance of different terms. It is often used to visualize text data, such as customer feedback or social media posts.