

# Statistical Functions

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The modules in this group support the application mathematical operations that are critical for machine learning. You can:

- Perform ad hoc computations on column values, including rounding
- Compute a variety of standard statistical distributions using the values in a column
- Create reports that describe a column's metadata, using either basic statistical measures such as mean and standard deviation or more advanced descriptive statistics
- Calculate correlations among columns
- Generate probability scores for column values

## List of Modules

The category Statistical Functions includes the following modules:

Module	Description
Apply Math Operation ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905975.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905975.aspx</a> )	Applies a mathematical operation to column values
Descriptive Statistics ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905933.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905933.aspx</a> )	Generates a basic descriptive statistics report for the columns in a dataset
Elementary Statistics ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905936.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905936.aspx</a> )	Calculates specified summary statistics for selected dataset columns
Hypothesis Testing T-Test ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905917.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905917.aspx</a> )	Compares means from two datasets using a t-test
Linear Correlation ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905819.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905819.aspx</a> )	Calculates the linear correlation between column values in a dataset

Probability Function Evaluation ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905813.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905813.aspx</a> )	Fits a specified probability distribution function to a dataset
Replace Discrete Values ( <a href="https://msdn.microsoft.com/en-us/library/azure/dn905815.aspx">https://msdn.microsoft.com/en-us/library/azure/dn905815.aspx</a> )	Replaces discrete values from one column with numeric values based on another column

## See Also

Data Transformation / Scale and Reduce (<https://msdn.microsoft.com/en-us/library/azure/dn905911.aspx>)

Feature Selection Modules (<https://msdn.microsoft.com/en-us/library/azure/dn905912.aspx>)

Data Transformation / Learning with Counts (<https://msdn.microsoft.com/en-us/library/azure/dn913056.aspx>)

Machine Learning Module Descriptions (<https://msdn.microsoft.com/en-us/library/azure/dn906013.aspx>)

A-Z List of Machine Learning Studio Modules (<https://msdn.microsoft.com/en-us/library/azure/dn906033.aspx>)