

# Ku

## Distribution characteristics (Kurtosis, Skewness, Variance, Standard Deviation)

Tells how extreme or outlier-prone the data is

# Skewness

Tells which side the data leans—left or right

# Variance

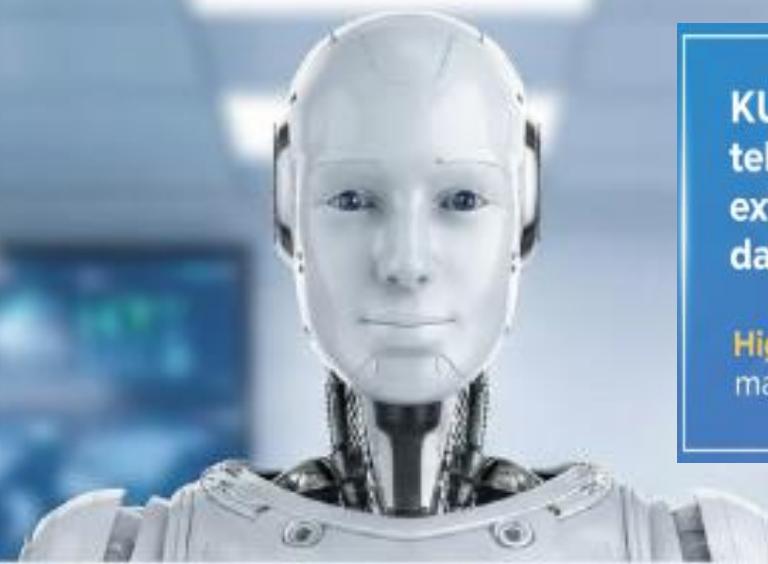
Shows how widely the data is spread out from the average

# Standard Deviation

Shows how far data points are from the average in simple units

# DATA STATISTICS

	ssc_p	hsc_p	degree_p	etest_p	mba_p	salary
kurtosis	-0.60751	0.086901	-0.09749	-1.08858	-0.470723	-0.239837
skew	-0.132649	0.162611	0.204164	0.282308	0.313576	0.8067
Var	117.228377	112.063731	53.60471	176.251018	34.028376	2944596800.882517
Std	10.827205	10.586016	7.321524	13.275956	5.833385	54264.139179



KURTOSIS =  
tells how  
extreme your  
data values are.



High kurtosis =  
many outliers.

Low kurtosis =  
fewer outliers.

Kurtosis tells us how “tall or flat” a distribution is, and how heavy the tails are. Think of a graph of data (like a mountain)

# 1. Kurtosis Analysis

Column	Kurtosis	Meaning
ssc_p	-0.60751	Flatter than normal (light tails)
hsc_p	0.086901	Very close to normal distribution
degree_p	-0.09749	Close to normal
etest_p	-1.08858	Very flat, light tails
mba_p	-0.470723	Slightly flat distribution
salary	-0.239837	Slightly flat distribution

## Summary:

- ❖ Most variables have negative kurtosis, meaning the distributions are flatter with fewer extreme outliers.

## 2. Skewness Analysis

Column	Skew	Meaning
ssc_p	-0.132649	Slight left skew
hsc_p	0.162611	Slight right skew
degree_p	0.204164	Mild right skew
etest_p	0.282308	Noticeable right skew
mba_p	0.313576	Right skew
salary	0.8067	Strong right skew

### Summary:

- ❖ Salary is highly right-skewed, meaning a few people earn much higher salaries than others.
- ❖ Other columns have only mild skew.

### 3. Variance (Var)

Column	Variance
ssc_p	117.228377
hsc_p	112.063731
degree_p	53.60471
etest_p	176.251018
mba_p	34.0309376
salary	2944596800.882517

#### Summary:

- ❖ Salary variance is extremely high, showing salary values vary a lot.
- ❖ MBA and Degree percentages have the lowest variance (more consistent values).

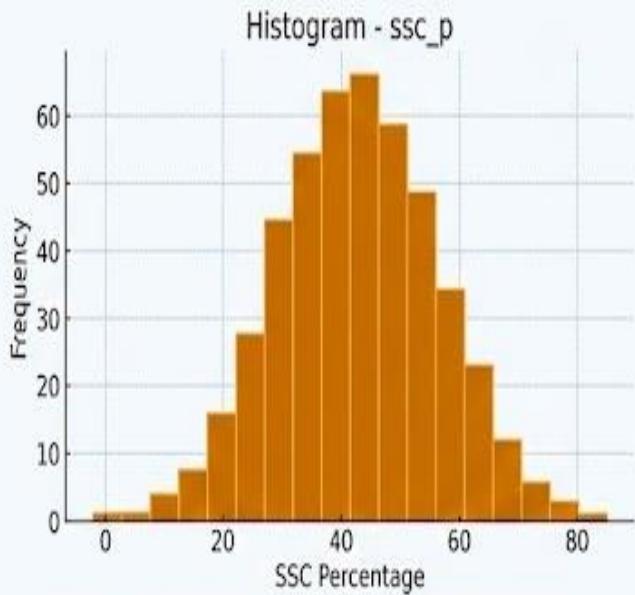
## 📌 4. Standard Deviation (Std)

Column	Std
ssc_p	10.827205
hsc_p	10.586016
degree_p	7.321524
etest_p	13.275956
mba_p	5.833385
salary	54264.139179

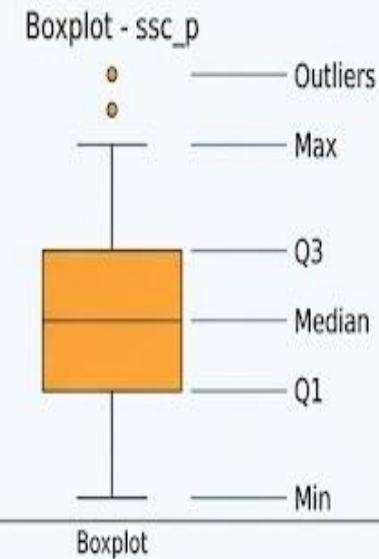
### Summary:

- ❖ Salary has a very high standard deviation, meaning values are widely spread.
- ❖ MBA has the lowest Std → values are close to the mean.

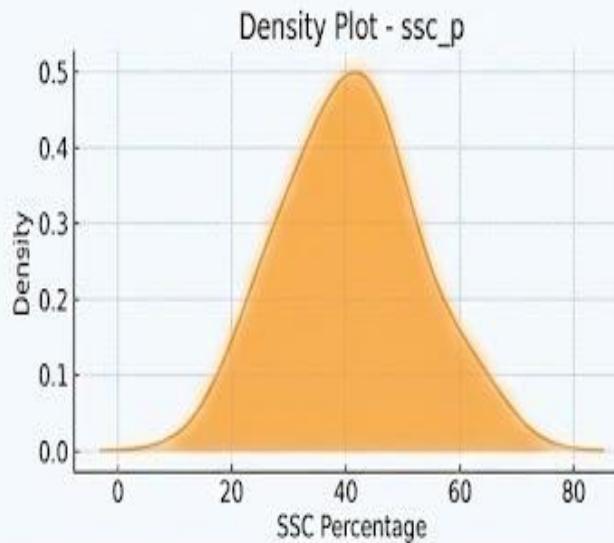
# SSC\_P - Statistical Visuals



**Histogram:** Shows a normal, symmetrical distribution of SSC percentages.

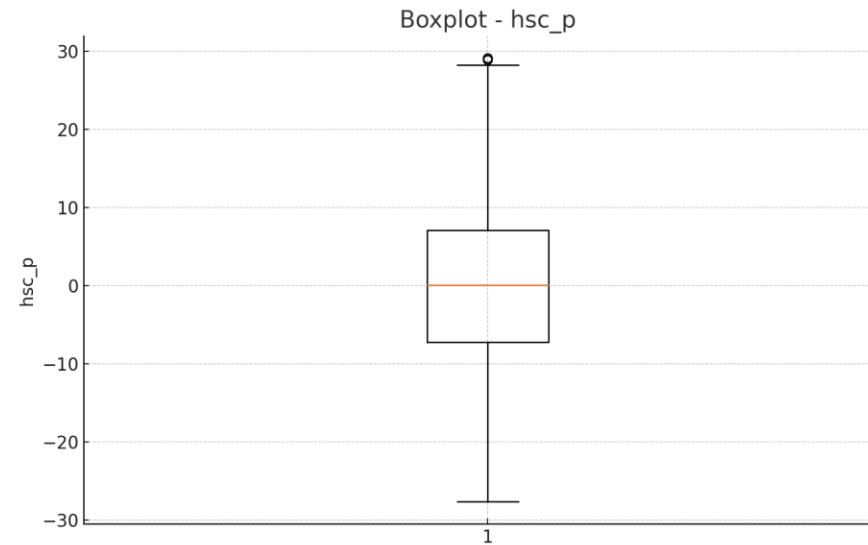
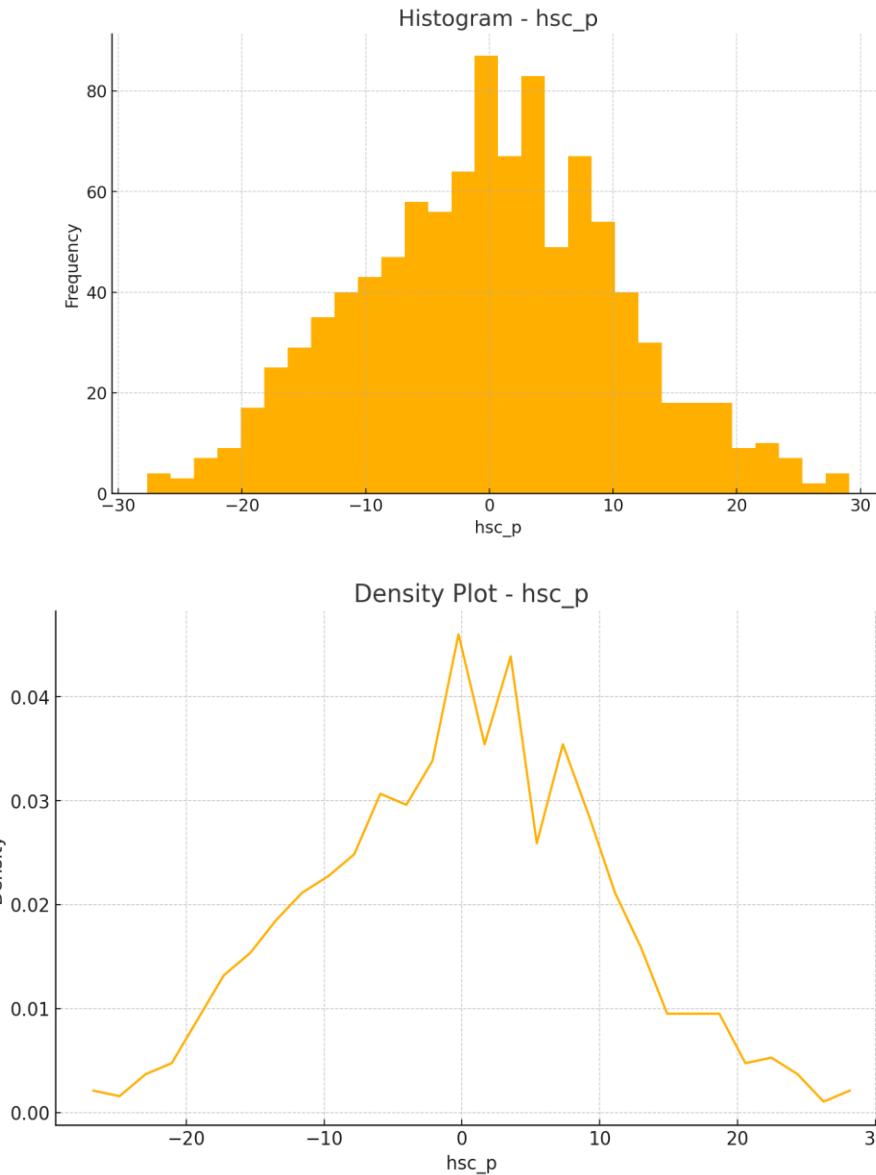


**Boxplot:** Highlights the median, interquartile range, and potential outliers in the data.

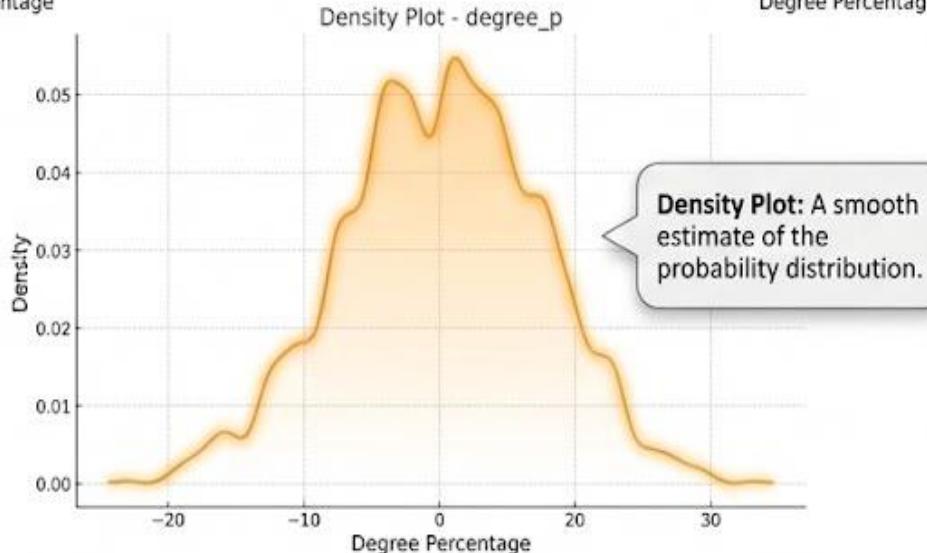
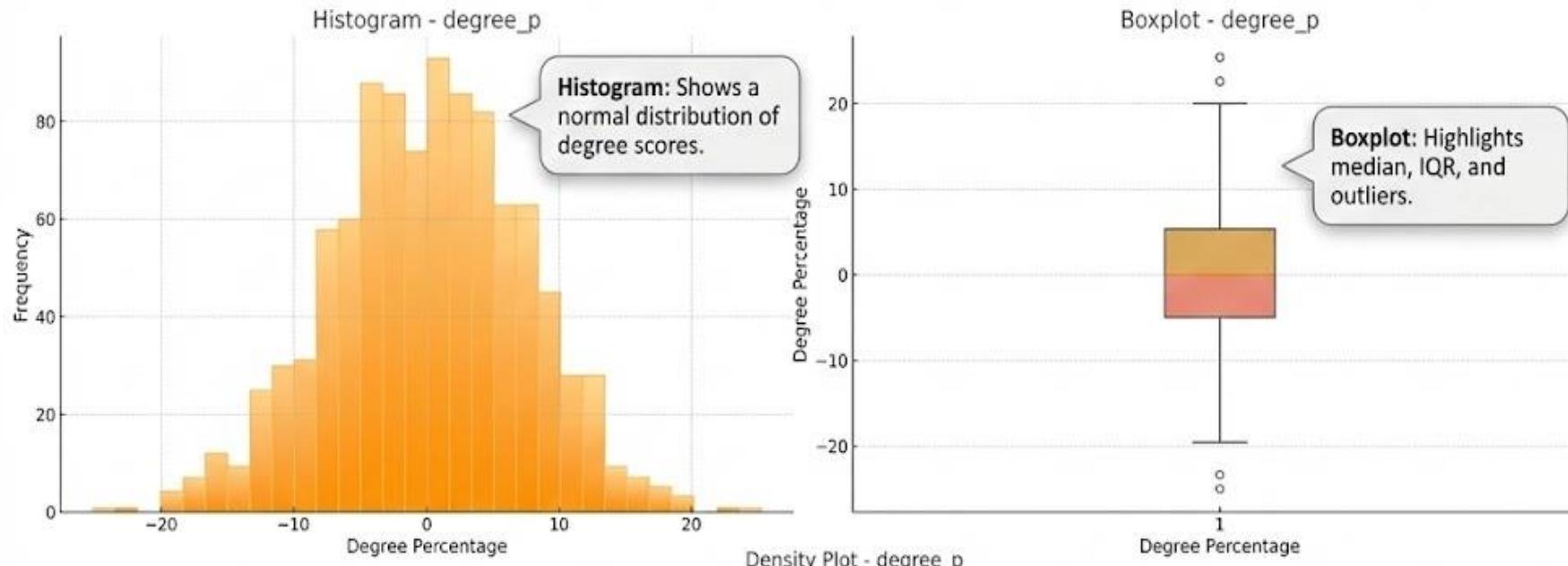


**Density Plot:** Provides a smooth visualization of the probability distribution function.

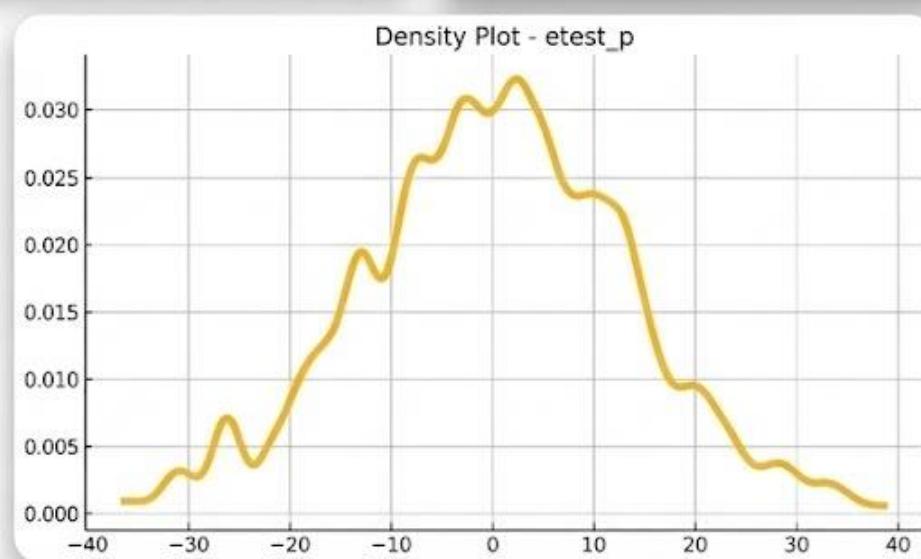
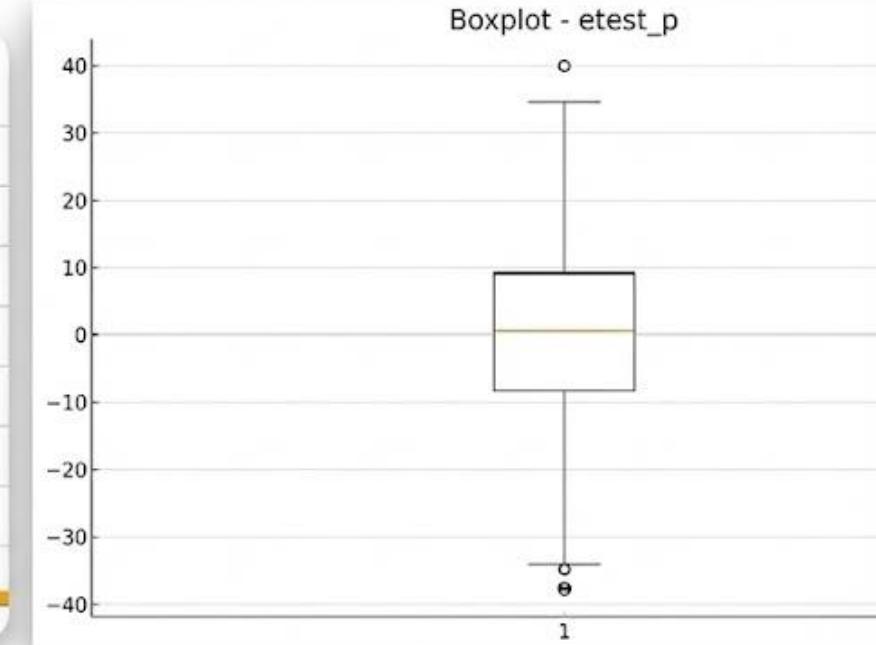
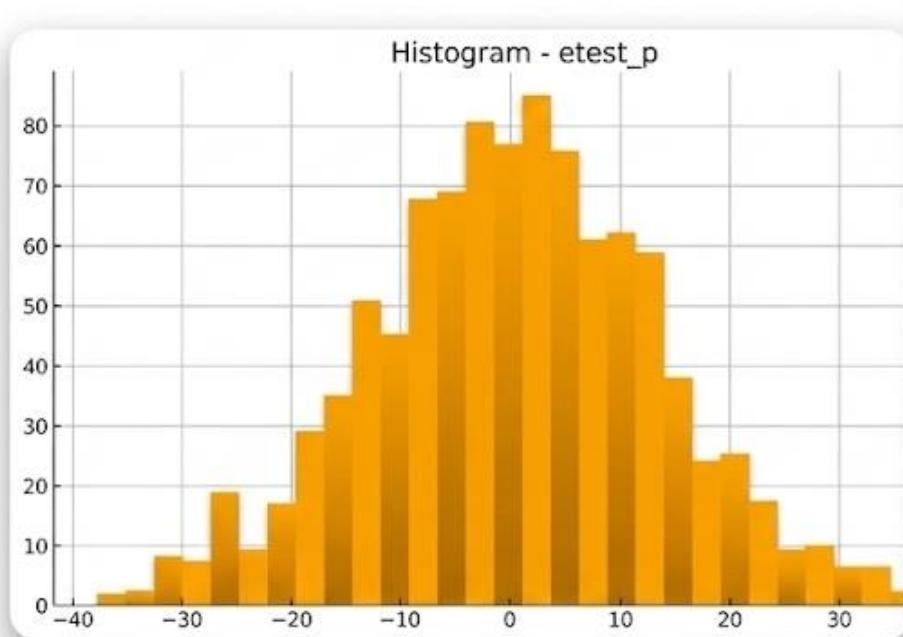
# HSC\_P - Statistical Visuals



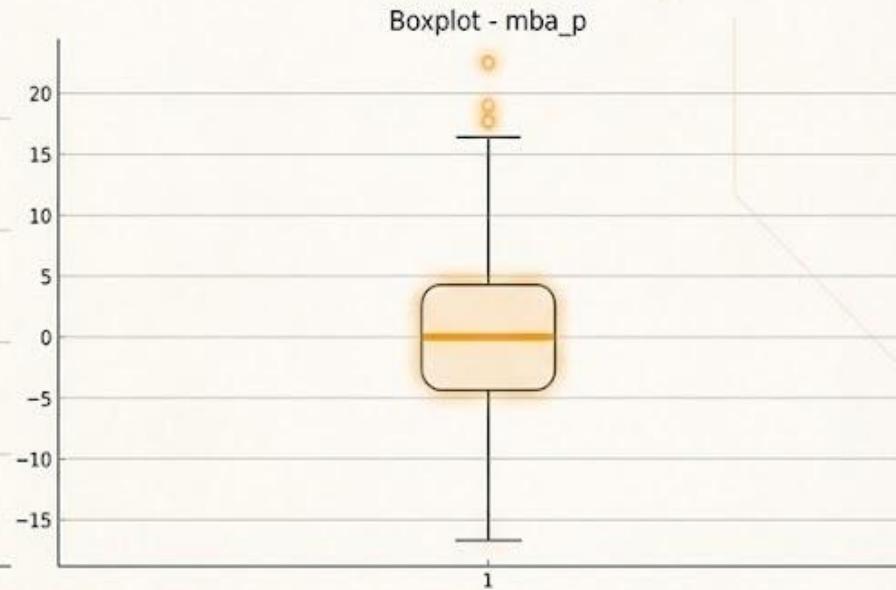
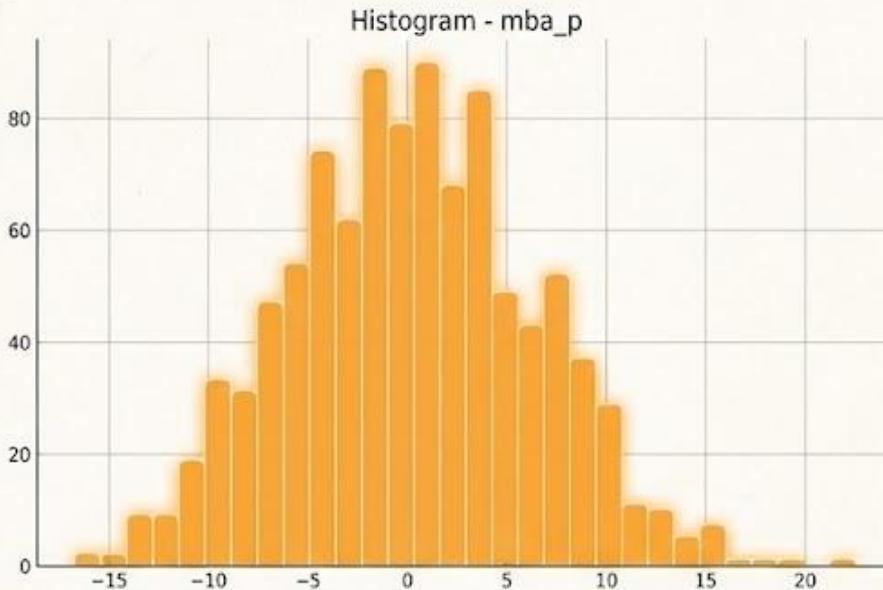
# DEGREE\_P - Statistical Visuals



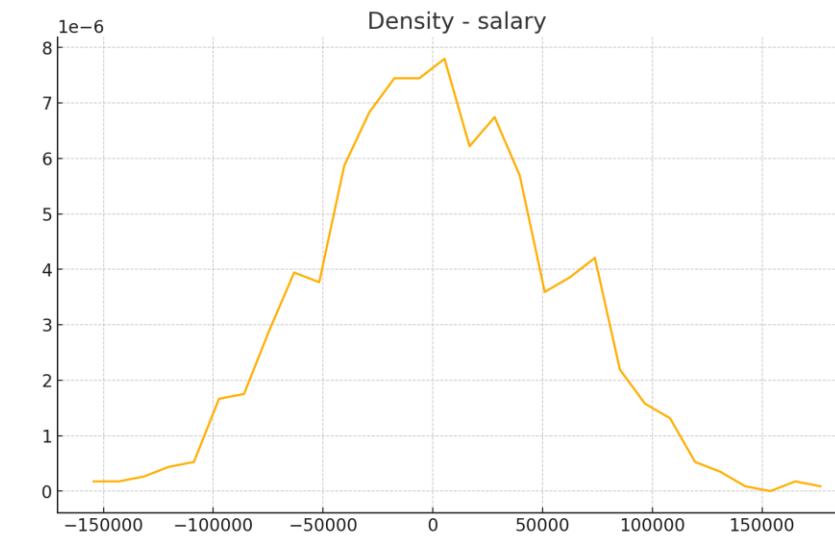
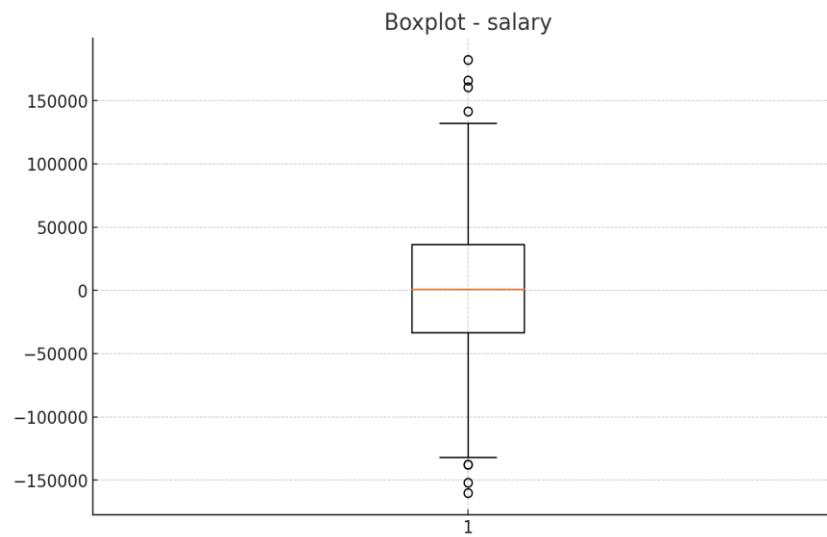
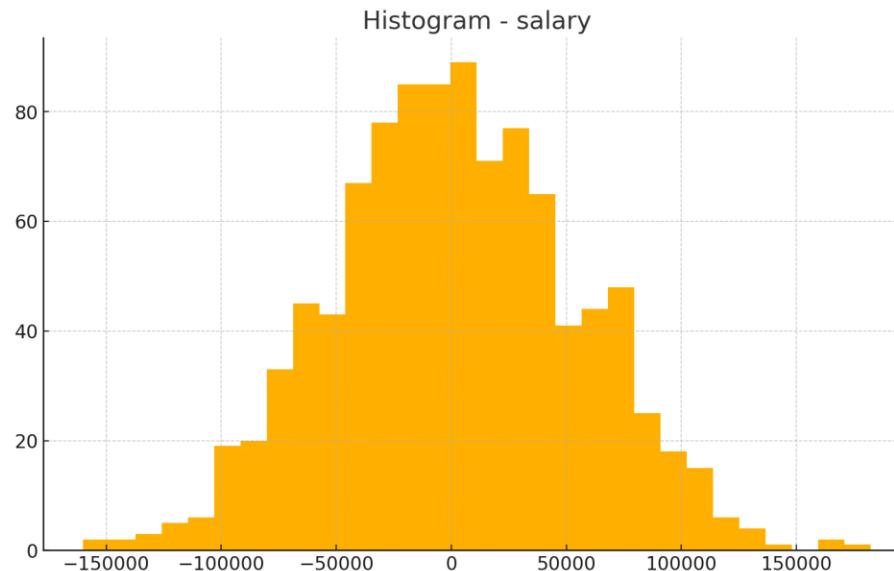
# ETEST\_P - Statistical Visuals



# MBA\_P - Statistical Visuals



# SALARY - Statistical Visuals

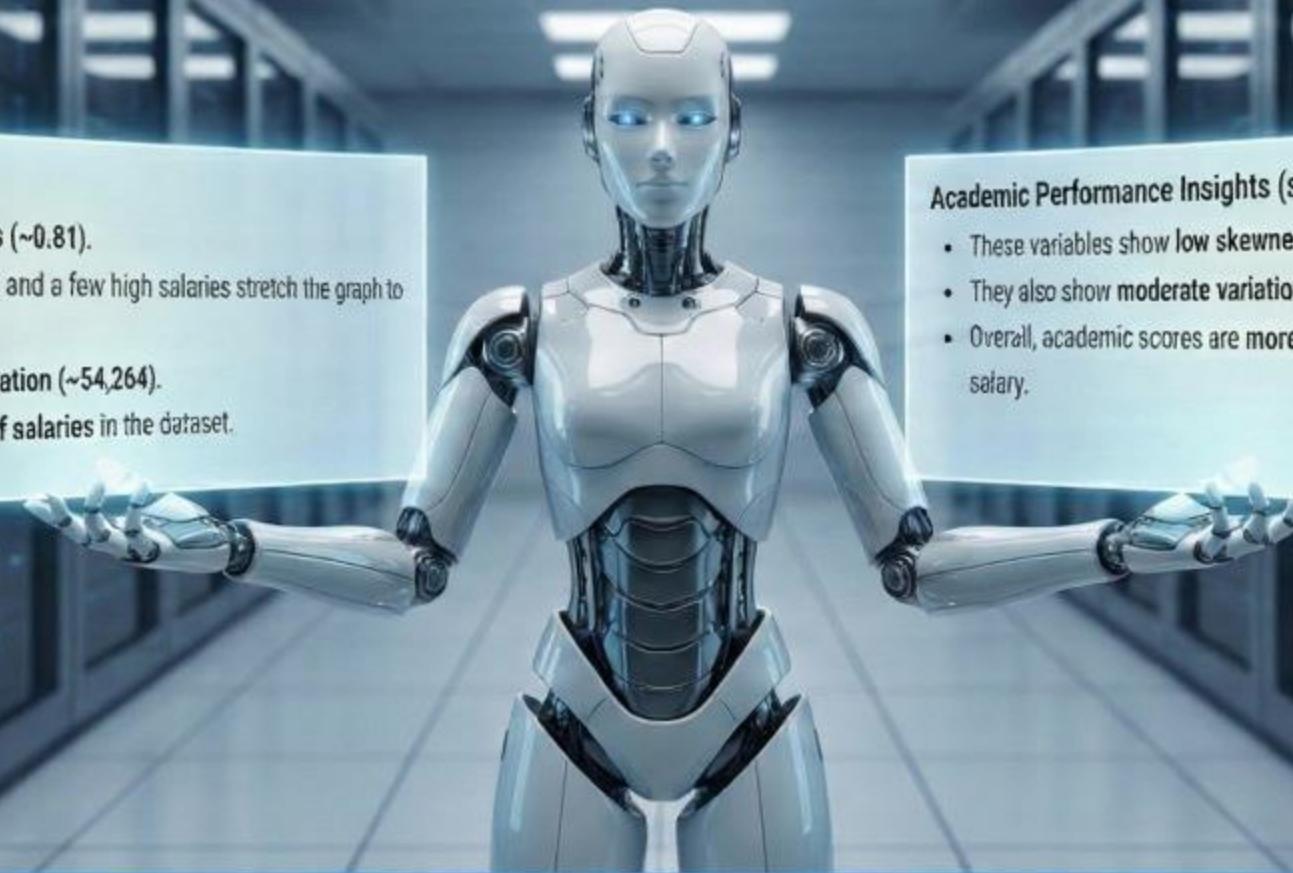


### Salary Insights

- Salary has **high positive skewness** (~0.81).
- This means **most salaries are low**, and a few high salaries stretch the graph to **the right**.
- Salary also shows the **highest variation** (~54,264).
- This indicates a **very wide range of salaries** in the dataset.

### Academic Performance Insights (`ssc_p, hsc_p, degree_p, etes_p, mba_p`)

- These variables show **low skewness** → they are **close to symmetrical**.
- They also show **moderate variation**, meaning the spread is not extreme.
- Overall, academic scores are **more consistent and uniformly distributed** than salary.





Thank you

# DATA STATISTICS

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kurtosis	-0.60751	0.086901	-0.09749	-1.08858	-0.470723	-0.239837
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