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RESEARCH LABS

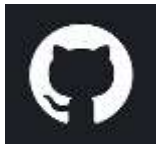
INNOVATION. AUTOMATION. ANALYTICS

PROJECT ON

Exploratory Data Analysis On AMCAT Data

About me

- I am a B.Tech Final Year student in CSE-Data Science.
- I am really passionate about Data science because it allows me to take data driven decisions and help me solve complex problems. As the saying goes “Data is the wealth” and I want to be a part of it.
- I am currently an intern in Innomatics Research Labs, where I have been working on various data driven projects. Additionally I have done some courses related to Data Science.



https://github.com/sam-sindhu/AMCAT-EDA

www.linkedin.com/in/samudrala-sindhu

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Agenda

- **Objective of the Project:**
- The objective is to analyze a dataset that includes job roles, salaries, educational backgrounds and gender to uncover key patterns, trends and correlations. This analysis aims to:
  - Identify factors that most influence salary levels.
  - Understand how education impact job roles and salaries.
  - Explore gender-based salary distributions.
  - Provide the actionable insights to help business developer for a salary policies and more effective hiring strategies for each

Data Cleaning Steps

- Import Libraries
- Load Dataset
- Check for Missing Values
- Handle missing values if exists.
- Remove Duplicates
- Check Data Types
- Change data types if requied.
- Outlier Detection and Removal

Univariate Analysis

College State Insights:

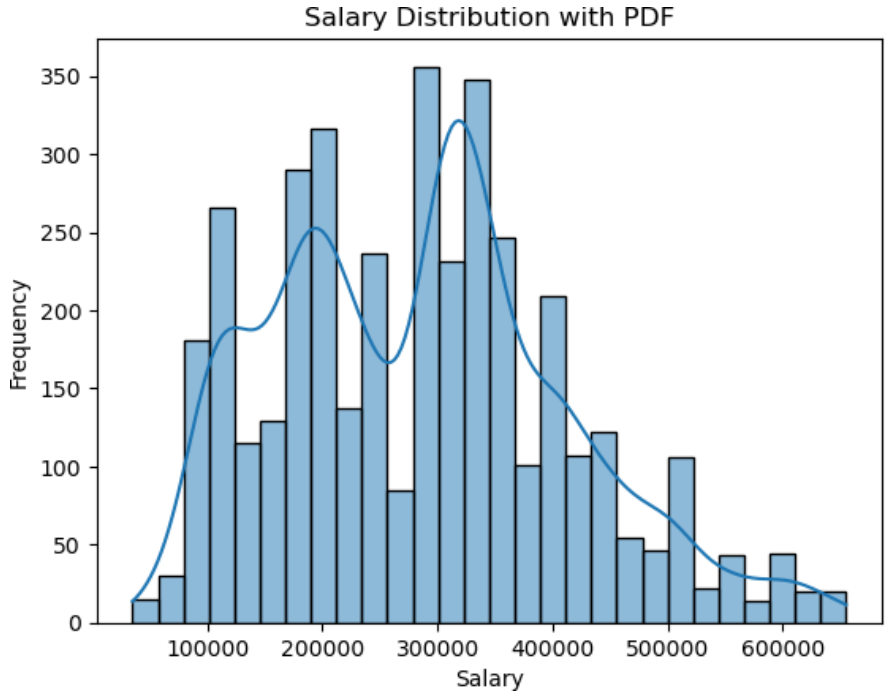
- The leading states with colleges in the dataset, are Uttar Pradesh, Karnataka, Tamil Nadu, Maharashtra, West Bengal, Punjab, Madhya Pradesh, Haryana, and Delhi.
- This indicates that these states play a significant role in producing skilled graduates entering the work place.

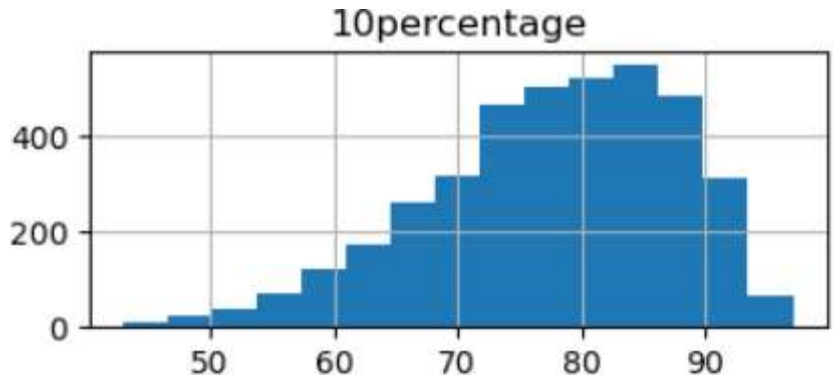
Job City Insights:

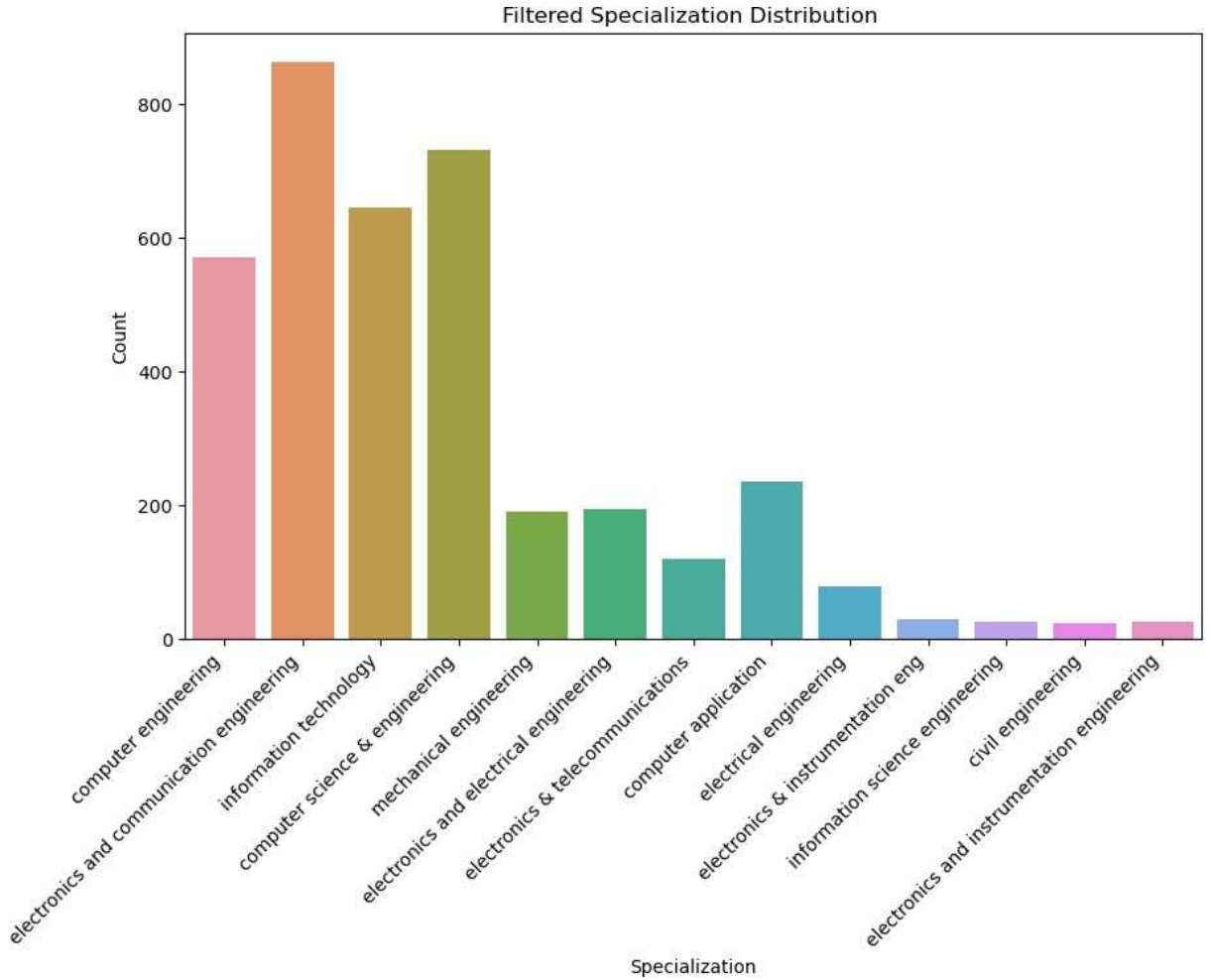
- The dataset highlights the top cities for jobs, including Bangalore, Noida, Pune, Gurgaon, Mumbai, Lucknow, Mysore, Navi Mumbai, and Delhi.
- These cities emerge as major employment hubs, with job opportunities spread across various industries.

Gender Distribution Insights:

- This distribution helps us know about the gender distribution across the dataset .
- It shows the gender imbalance, with males dominating females.







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Bivariate Analysis

Salary vs. Gender:

- There is a noticeable gap between male and female salaries, with men generally earning more across various job roles, especially in technical fields.
- Certain job roles show a larger salary gap between genders.

Salary vs. Experience:

•There is a positive correlation between years of experience and salary, with salaries increasing significantly as employees gain more experience. However, salary growth plateaus after about 8-10 years.

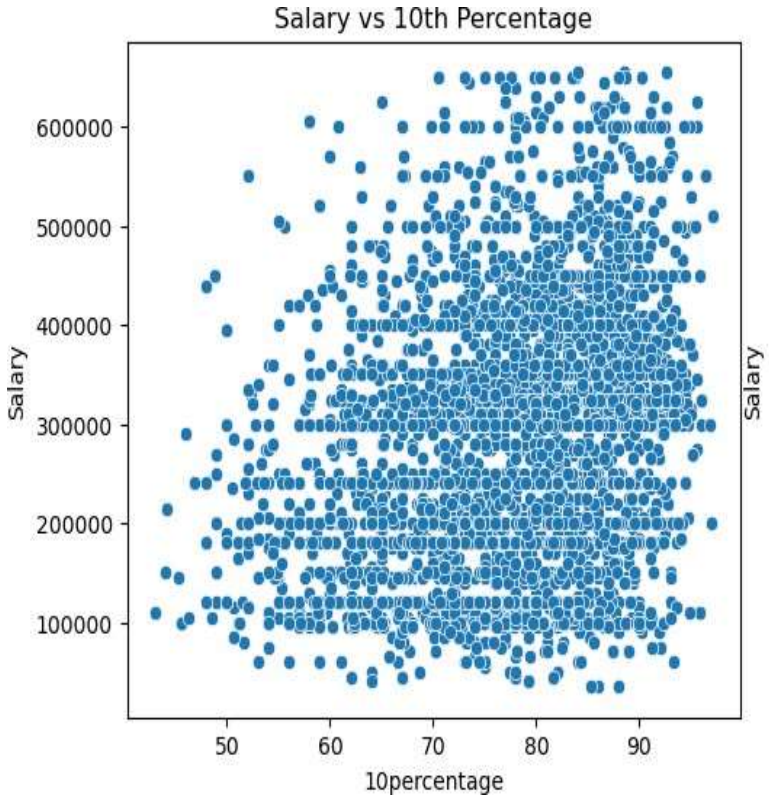
Salary vs. Education Background:

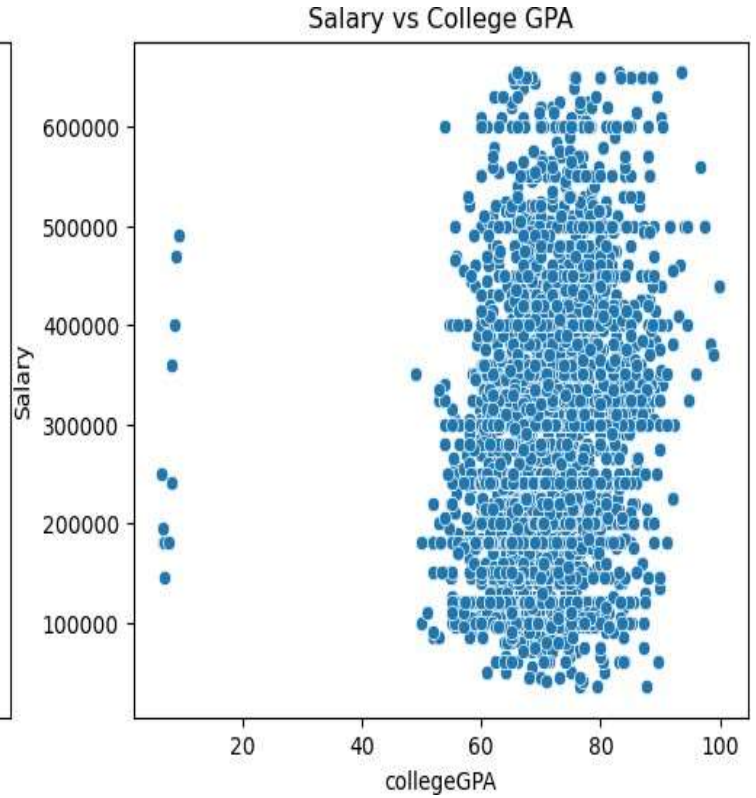
•Graduates with a Computer Science degree earn higher salaries on average compared to graduates from Civil, Mechanical, or other engineering disciplines.

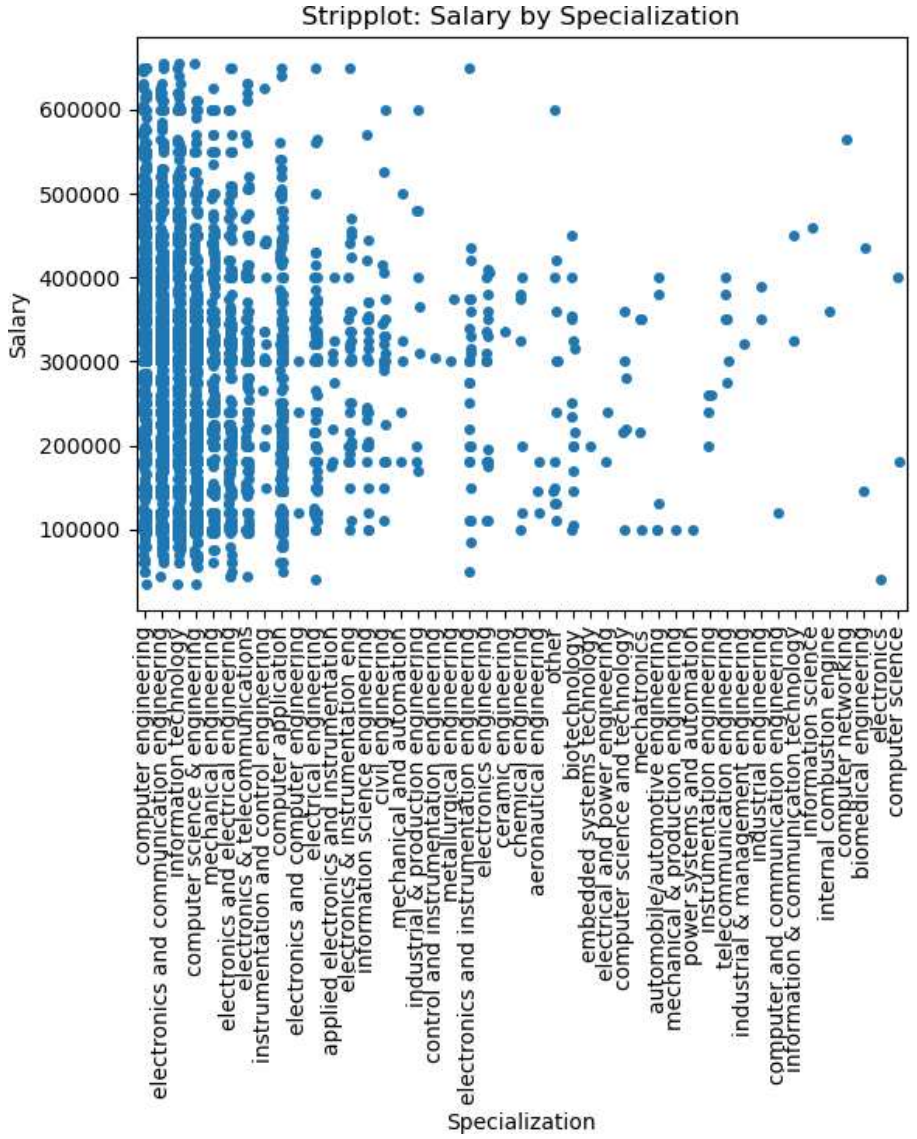
•Education plays a critical role in determining job positions and salary levels.

Gender vs. Job Role Distribution:

•Men are more represented in higher-paying technical and managerial roles, while women are more likely to be in mid-level roles with lower salaries.







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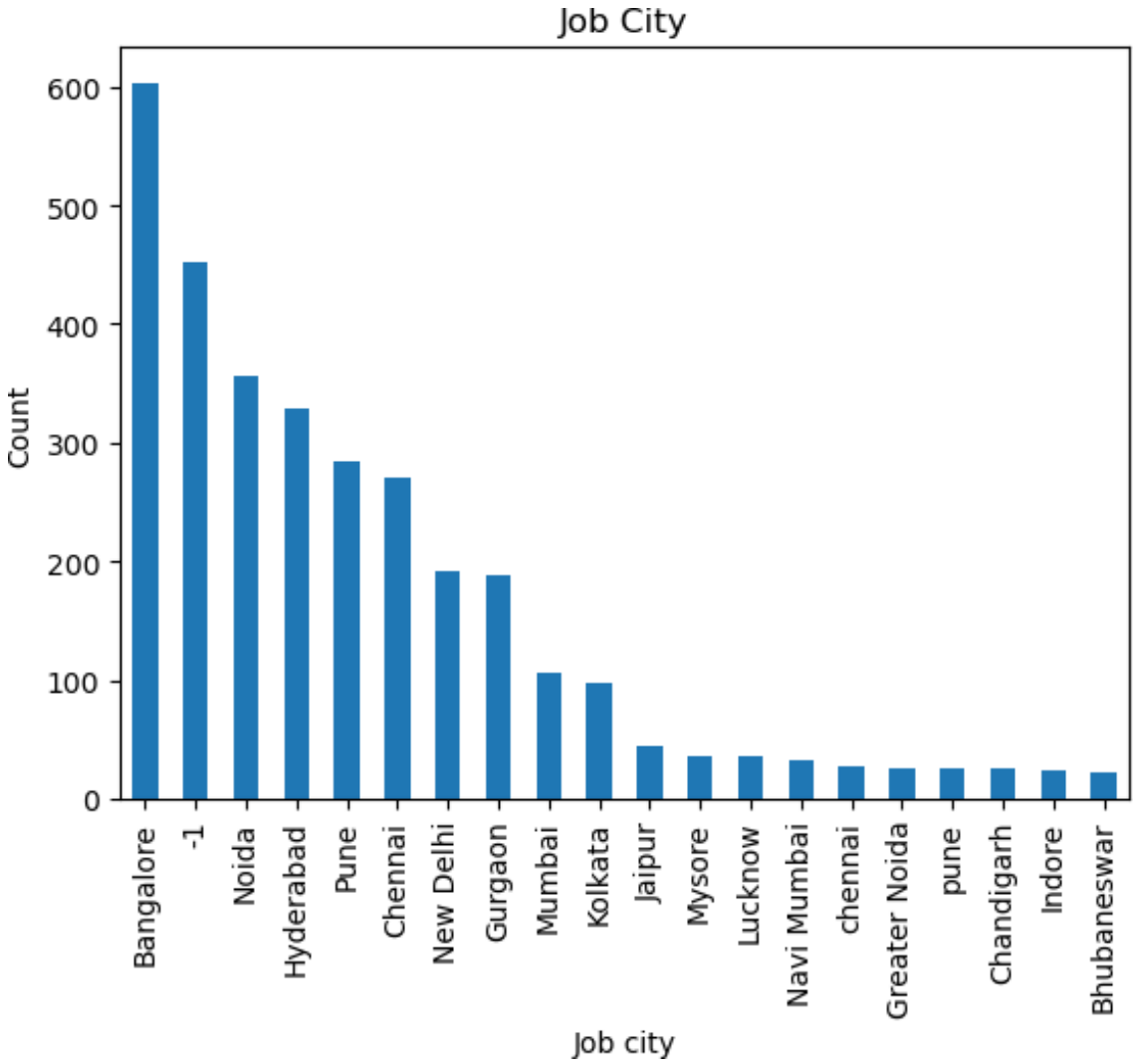

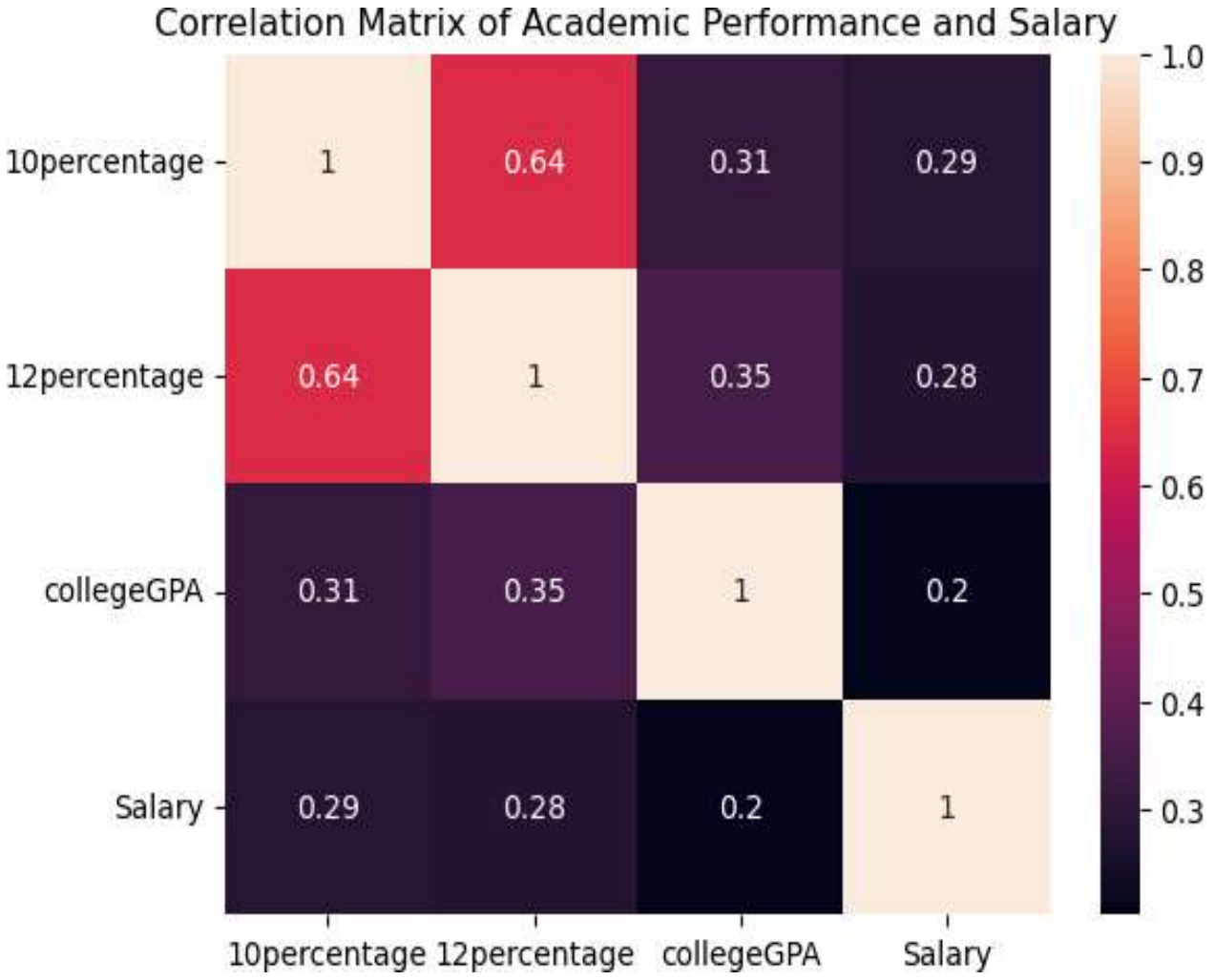

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THANK YOU

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