



**INNOVATION. AUTOMATION. ANALYTICS**

## **PROJECT ON**

### **EDA on Engineering Graduates' Outcomes**

Subtitle: "AMEO 2015 Dataset Analysis"

**PRESENTED BY:-**

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# Introduction

## Let's Explore the data!

Imagine our dataset as a treasure trove of information waiting to be uncovered. Our goal is to dive deep into this data, like detectives investigating a case, to find valuable clues and patterns. By doing so, we aim to answer important questions and make smarter decisions.



# Dataset Overview

## Project Snapshot

Let's start by getting to know our dataset better. We'll import the data and take a sneak peek with the help of some basic statistics. This step sets the stage for our analytical adventure.

| Unnamed: 0 |       | ID     | Salary  | DOJ        | DOL                    | Designation              | JobCity   | Gender | DOB        | 10pe |
|------------|-------|--------|---------|------------|------------------------|--------------------------|-----------|--------|------------|------|
| 0          | train | 203097 | 420000  | 2012-06-01 | present                | senior quality engineer  | Bangalore | f      | 1990-02-19 |      |
| 1          | train | 579905 | 500000  | 2013-09-01 | present                | assistant manager        | Indore    | m      | 1989-10-04 |      |
| 2          | train | 810601 | 325000  | 2014-06-01 | present                | systems engineer         | Chennai   | f      | 1992-08-03 |      |
| 3          | train | 267447 | 1100000 | 2011-07-01 | present                | senior software engineer | Gurgaon   | m      | 1989-12-05 |      |
| 4          | train | 343523 | 200000  | 2014-03-01 | 2015-03-01<br>00:00:00 | get                      | Manesar   | m      | 1991-02-27 |      |

5 rows × 39 columns

# Univariate Analysis

# Understanding Individual Variables

## 1. Checking Salary Distribution

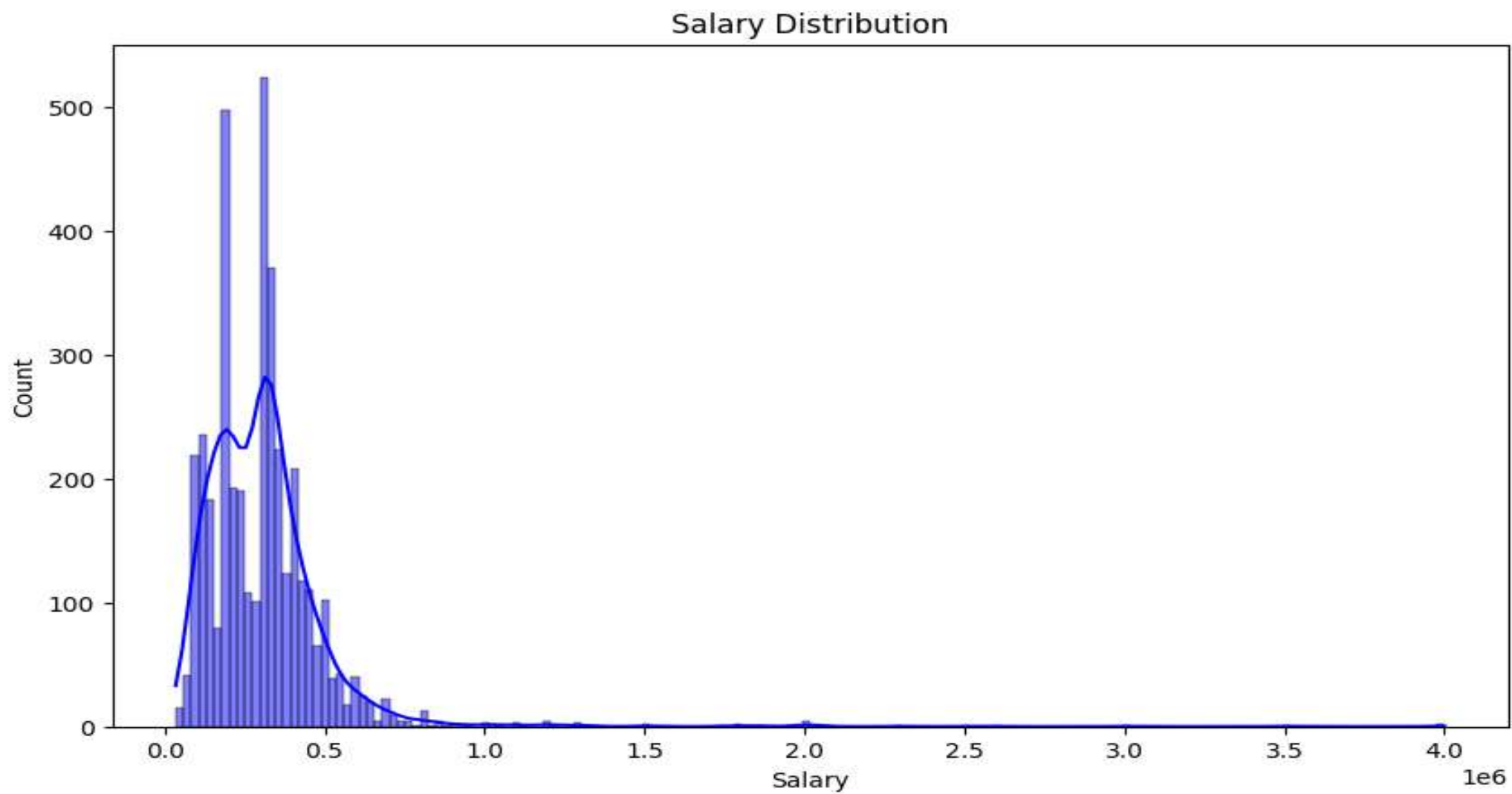
For Salaries:

- See how salaries are spread out among our team with this graph called Probability Density Function (PDF).
- **Example Code:** `sns.histplot(data['Salary'], kde=True, color='skyblue')`

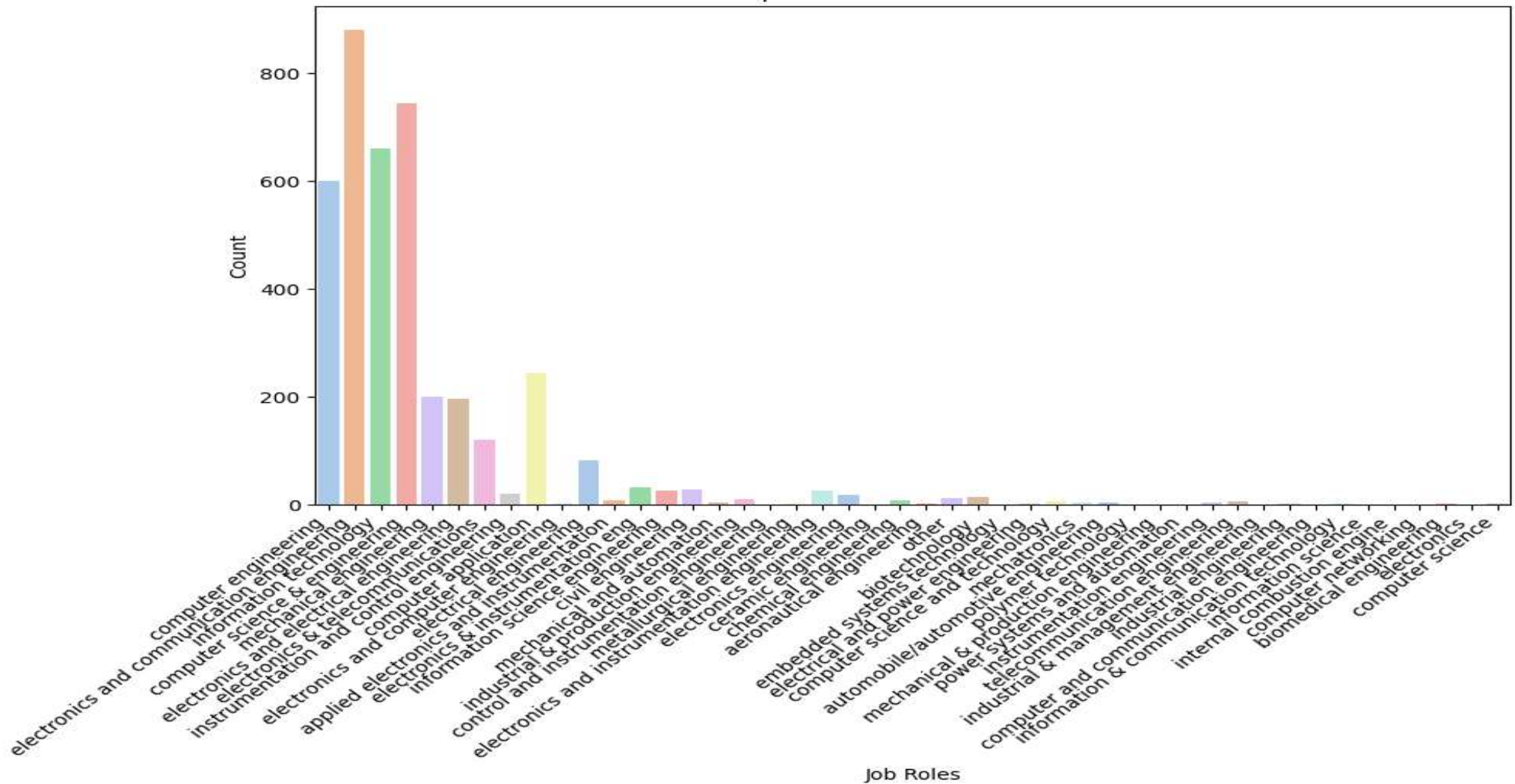
For Specializations:

- Now, let's look at the different job roles in our team using simple Countplots.
- **Example Code:** `sns.countplot(x='Specialization', data=data, palette='pastel')`





Specialization Distribution



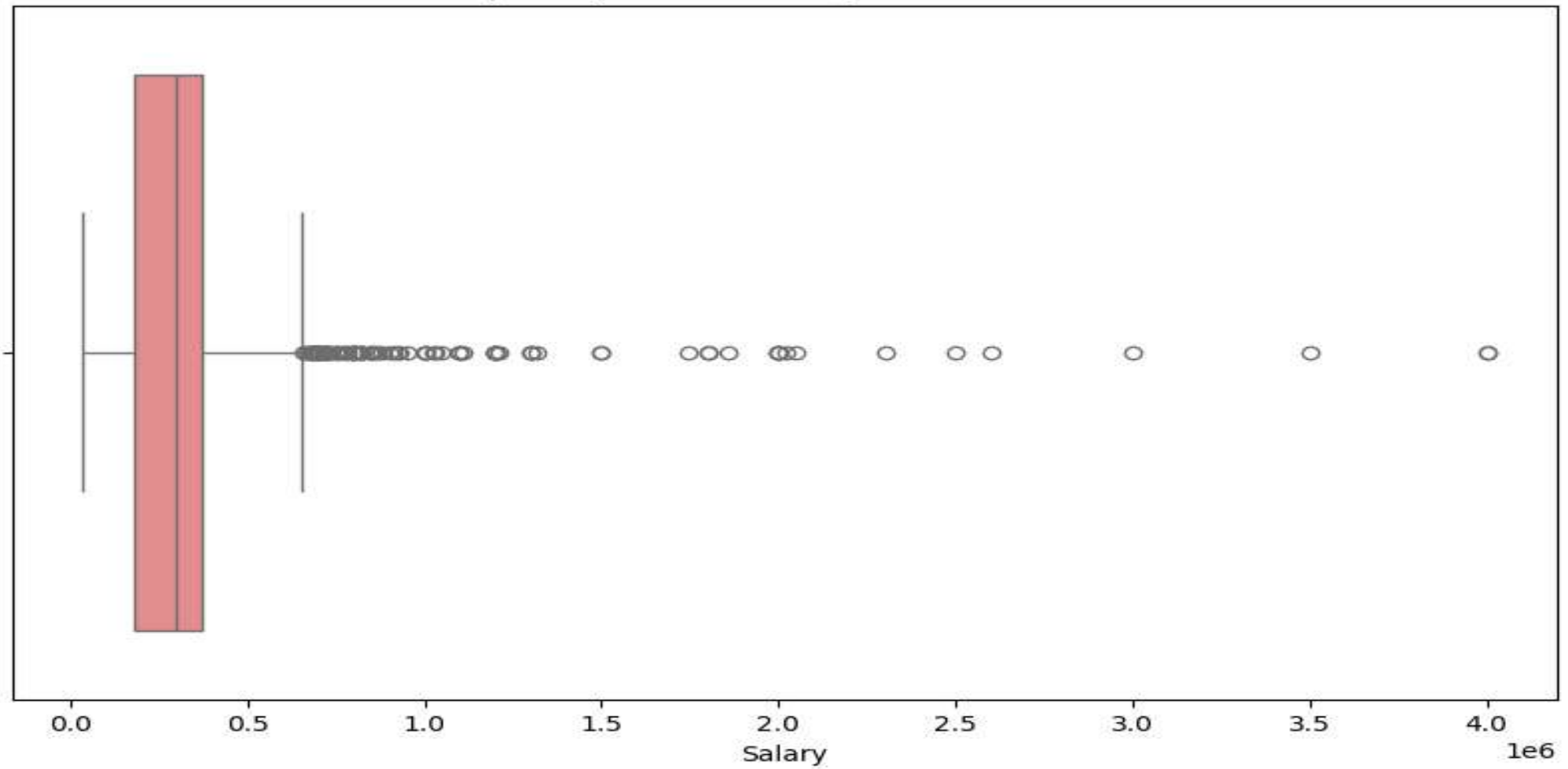
## 2. Keeping an Eye on Extreme Values:

- We'll find unusual values in salaries through a Boxplot. It helps us notice anything standing out.
- **Example Code:** `sns.boxplot(x=data['Salary'], color='lightcoral')`

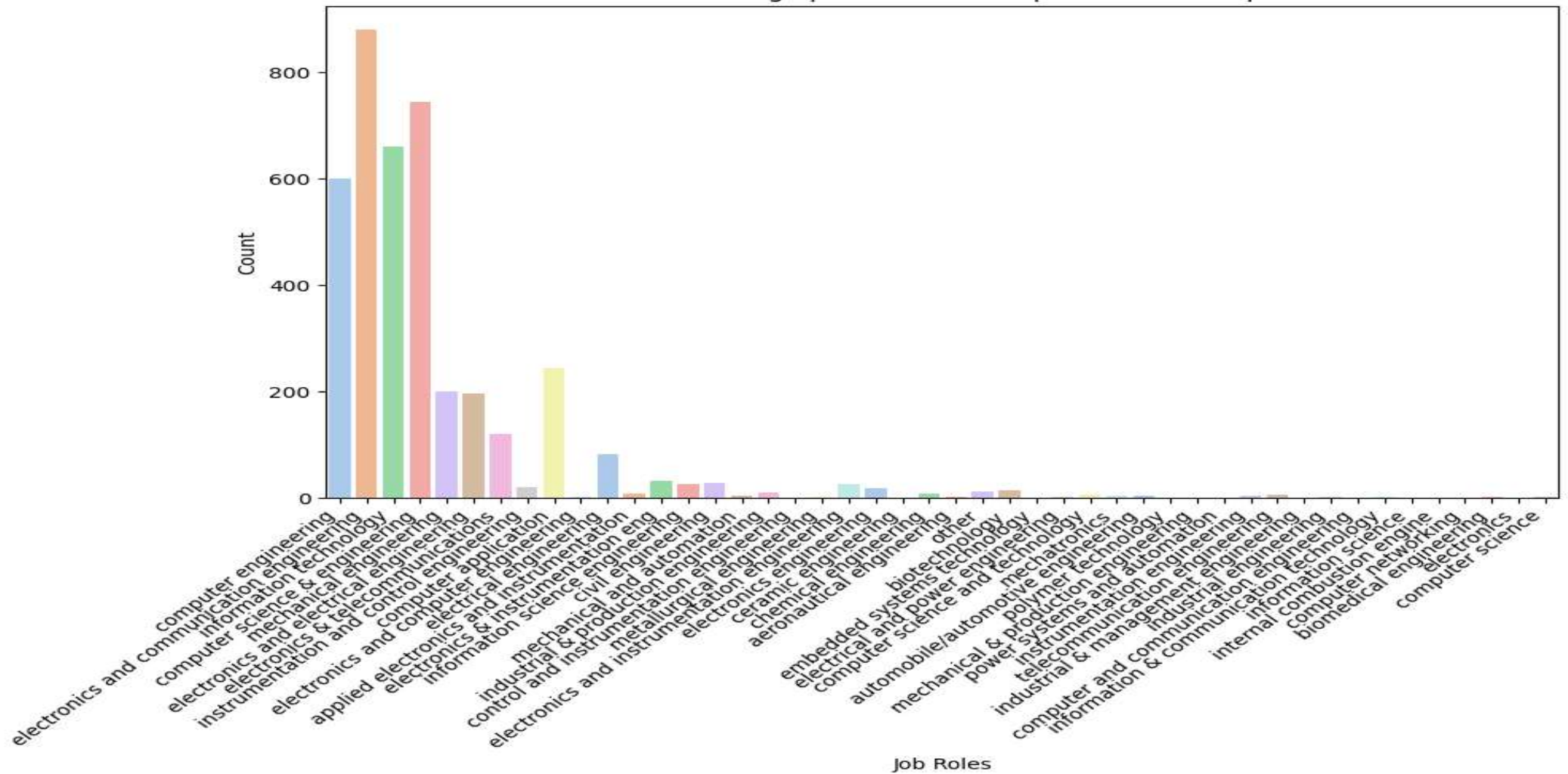
## 3. Understanding Specialization Frequencies:

- Let's see how many team members specialize in each area. Countplots make this easy.
- **Example Code:** `sns.countplot(x='Specialization', data=data, palette='pastel')`

Spotting Outliers - Boxplot for Salaries



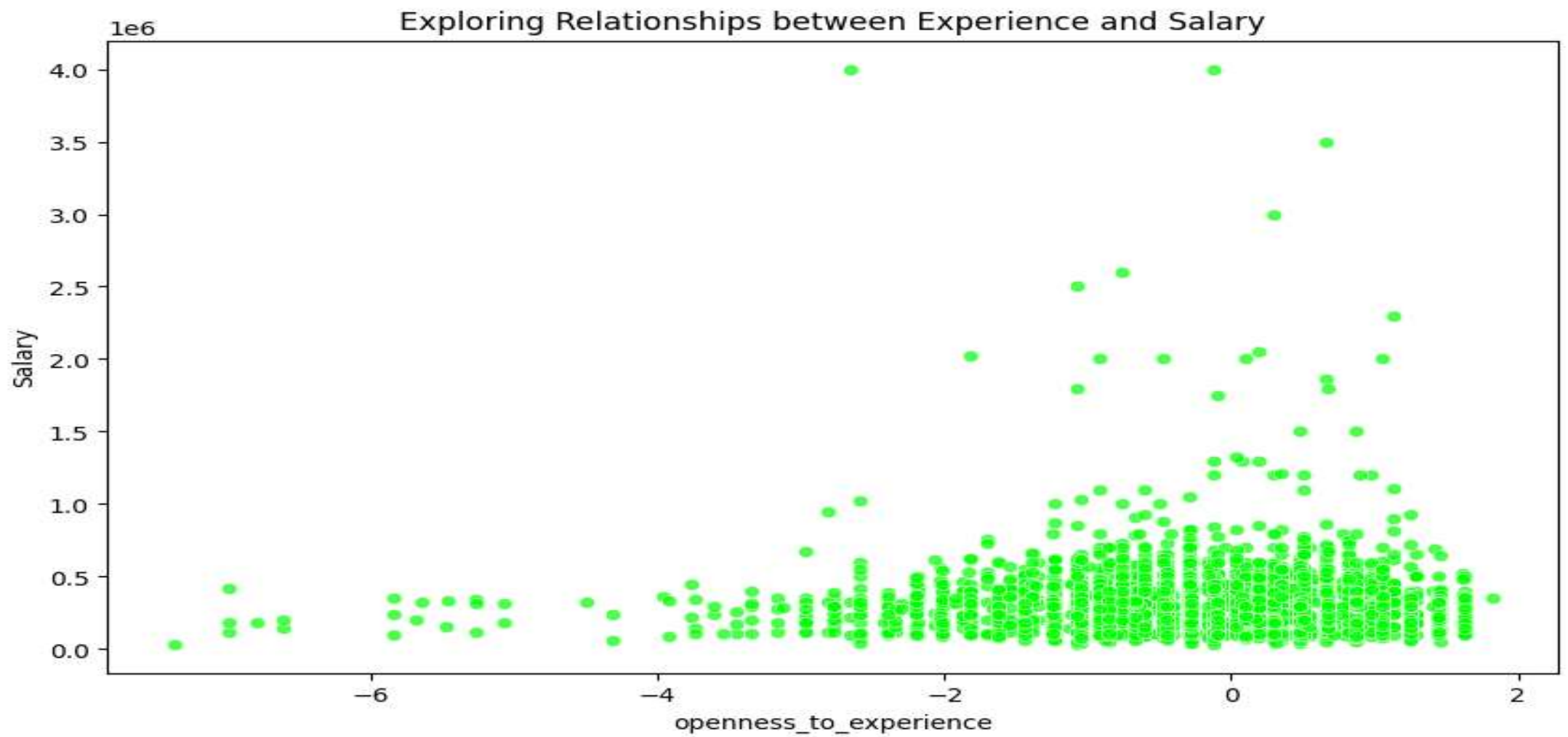
Understanding Specialization Frequencies - Countplot



# Bivariate Analysis

# Exploring Relationship

In this step, we delve into relationships between different variables to uncover patterns and correlations.

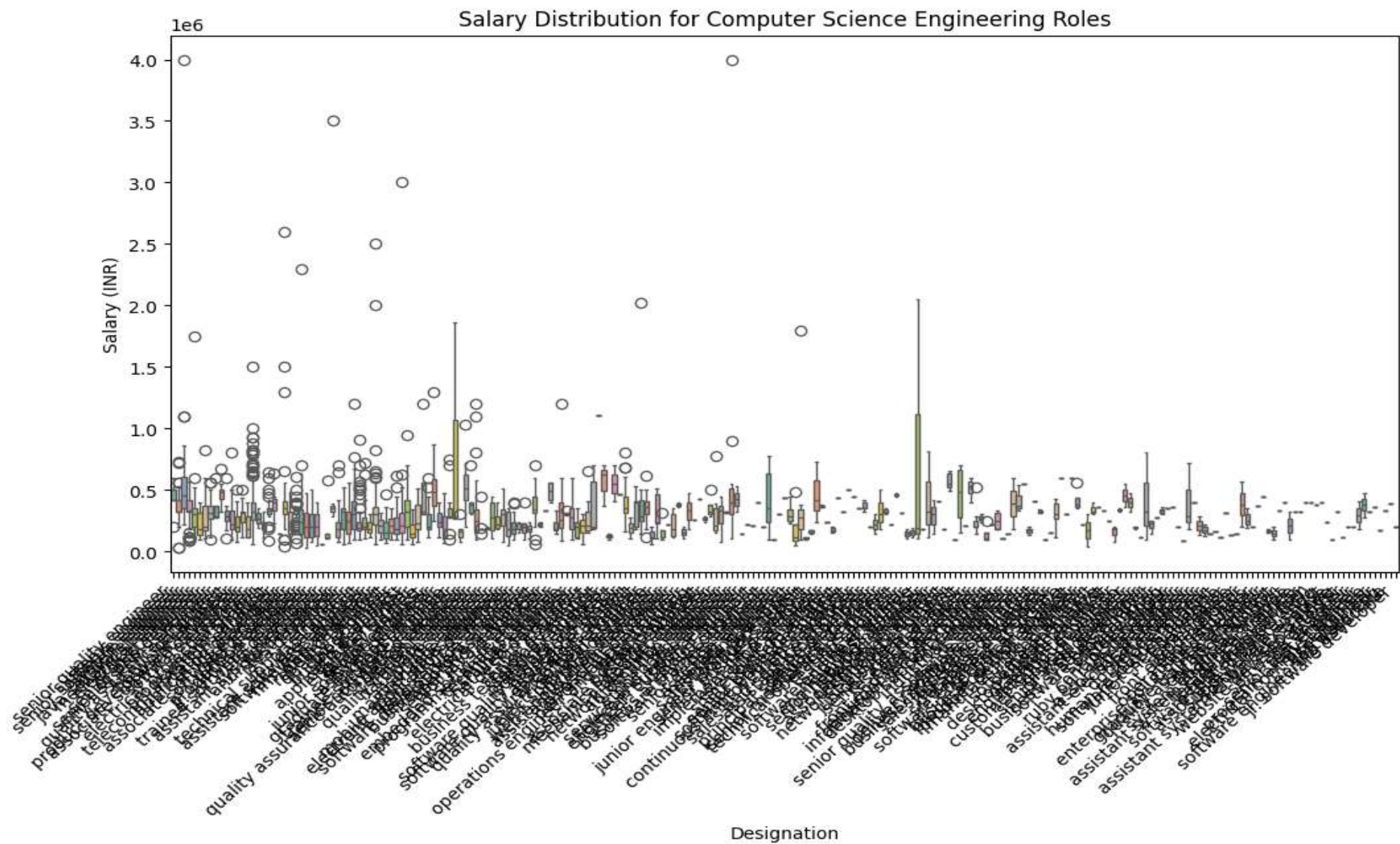




# Research Questions

## 1. Testing Earnings Claim

- Test the claim made by a Times of India article stating, "After doing your Computer Science Engineering, if you take up jobs as a Programming Analyst, Software Engineer, Hardware Engineer, and Associate Engineer, you can earn up to 2.5-3 lakhs as a fresh graduate."
- Utilize the data to validate or challenge this claim.
- Example: Visualize the salary distribution for Computer Science Engineering roles using a boxplot. Compare the median salary of different roles to assess the claim's validity.

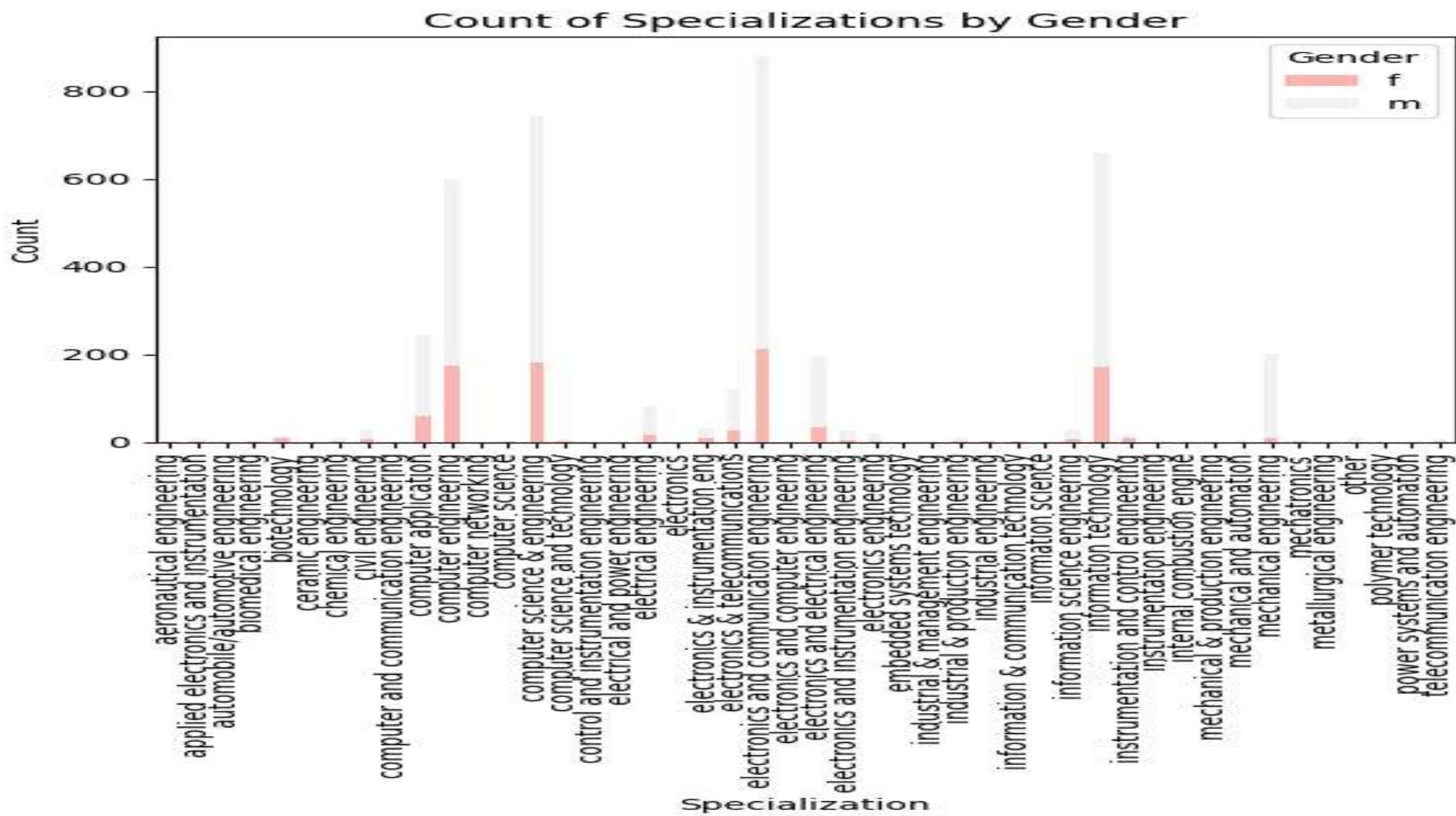


## 2. Exploring Gender-Specialization Relationship

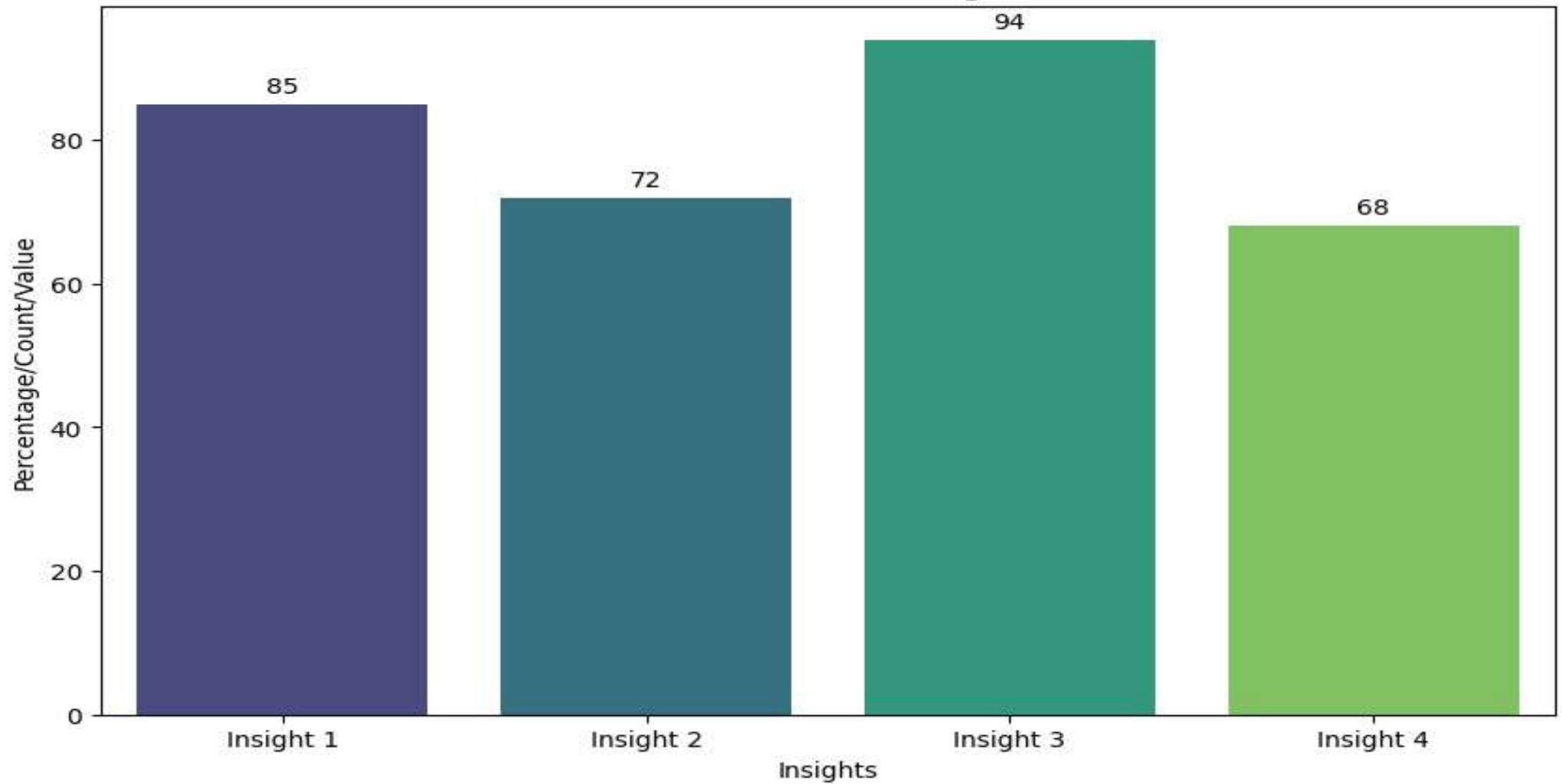
- Investigate the relationship between gender and specialization.
- Analyze if the preference for specialization varies based on gender.
- **Example:** Create a stacked bar plot showcasing the count of each specialization, categorized by gender.

## 3. Observations and Insights

- Provide key observations and insights derived from the analysis.
- Highlight any interesting patterns or trends discovered during the exploration.
- **Example:** Summarize findings such as the most common specialization, salary variations among roles, and any unexpected correlations.



## Observations and Insights



# Conclusion

## 1. What We Learned:

We found out some cool stuff about our team makeup and how different jobs and skills are spread out.

## 2. What's Standing Out:

Some jobs and skills are more common in our team, giving us clues about what we're good at.

## 3. Big Picture Takeaways:

Salaries differ among us, and we spotted some key roles like software and data folks that are a big deal.



Any  
Question



THANK  
YOU

