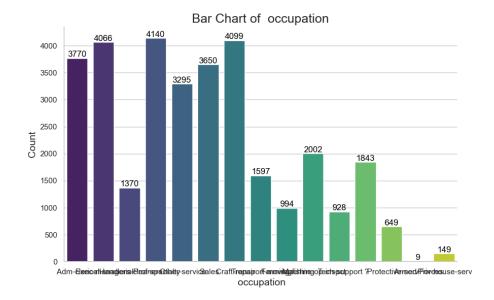# Bias Detection Report

Bias Detection Report for Occupation Feature

Bias Type: Distribution

Relevant Feature: occupation

Bias Levels:

- Entropy & Shannon Balance: Level 2 (Minimal Bias)

- Gini Index: Level 1 (No Bias)

- Chi-Square Test: Level 5 (Extreme Bias)

Overall Bias Level: Level 3 (Moderate Bias)

Detailed Findings:

- The Normalized Entropy indicates a well-distributed occupation feature with minimal bias.

- The Gini Index suggests no inequality in the occupation distribution.

- The Chi-Square test reveals a significant deviation from a uniform distribution, suggesting potential bias due to the uneven distribution of occupations.

Bar Chart of occupation

Occupation	Count
Adm-clerical	3770
Exec-managerial	4066
Handlers-cleaners	1370
Prof-specialty	4140
Other-service	3295
Sales	3650
Craft-repair	4099
Transport-moving	1597
Farming-fishing	994
Machine-op-inspct	2002
Tech-support	928
?	1843
Protective-serv	649
Armed-Forces	9
Priv-house-serv	149

Pie Chart of occupation