Final Project Report

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Introduction

As the AI and tech industry continues to grow, understanding salary distribution and the factors that influence it is crucial for both employers and employees. Several variables can impact salary, such as experience level, remote work, job title, company size, and geographical location. For organizations, knowing these factors can help in offering competitive salaries, while for professionals, it assists in career planning and salary negotiations.

The dataset used in this analysis contains salary information for individuals working in the global AI and tech industry, spanning different roles, experience levels, employment types, and locations. The dataset includes data points such as salary (in both local currency and converted to USD), remote work ratios, company sizes, and the employee’s country of residence. The following is an explanation of the important variables in the dataset to better understand the results.

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| --- | --- |
| Work\_year | The year the salary was paid |
| experience\_level | The experience level in the job during the year with the following possible values:  EN: Entry-level / Junior  MI: Mid-level / Intermediate  SE: Senior-level / Expert  EX:Executive-level / Director |
| employment\_type | The type of employement for the role:  PT: Part-time  FT: Full-time  CT: Contract  FL: Freelance |
| remote\_ratio | The overall amount of work done remotely, possible values are as follows:  0: No remote work (less than 20%)  50: Partially remote/hybird  100: Fully remote (more than 80%) |
| company\_size | The average number of people that worked for the company during the year:  S: less than 50 employees (small)  M: 50 to 250 employees (medium)  L: more than 250 employees (large) |

Based on this dataset, two questions worth exploring are proposed：

* What are the key factors that influence salary levels in the global AI and tech industry, and how do these factors interact to shape salary？
* Whether there are more interactions between different factors related to salary.