

# INST414-Final

My topic is about the salaries of AI/ML roles.

Many new graduates who are looking for jobs in the Data Science industry do not have a clear way of knowing what they should be focusing on in their job search or which potential companies tend to hire candidates like them. People generally want to work at companies that are well rated, have an opportunity to work from home and pay well for the roles they are interested in. A great number of factors tie into your job search, especially for new grads. Using the results from the analysis, new graduates can also lookout for companies of a certain size, revenue, etc., to determine or predict how likely a company is to hire them. This report will describe the data that was used; explain the methods behind the analysis; explain the analysis; describe the results that were found; and conclude on the findings.

## Data

### Description of Data:

The dataset contains one table structured as follow:

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 employment for the role:

PT: Part-time

FT: Full-time

CT: Contract

FL: Freelance

job\_title: The role worked in during the year.

salary: The total gross salary amount paid.

salary\_currency: The currency of the salary paid as an ISO 4217 currency code.

salaryinusd: The salary in USD (FX rate divided by avg. USD rate for the respective year via [fxdata.foorilla.com](https://fxdata.foorilla.com)).

employee\_residence: Employee's primary country of residence in during the work year as an ISO 3166 country code.

remote\_ratio: The overall amount of work done remotely, possible values are as follows:

0: No remote work (less than 20%)

50: Partially remote

100: Fully remote (more than 80%)

Taoheed King  
INST414

company\_location: The country of the employer's main office or contracting branch as an ISO 3166 country code.

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)

## Method

Data was collected from a secondary source into a CSV file

## Analysis

Before running my analysis, the employment type, experience level, remote ratio, and company size all had to be recoded. For company size S as Startup, M as Medium, L as Big Enterprise. For employment type PT as Part-time, FT as Full-time, CT as Contract, and FL as Freelance. For remote ratio 0 as WFO, 50 as Hybrid, and 100 as WFH. For experience level EN as Junior, MI as Intermediate, SE as Expert, and EX as Director.

## Results

With my analysis, I am looking to answer some questions like:

Which role has the highest salary employment wise?

Which employment types do employers prefer to hire?

What Employment Type earns the highest salary among all Job Titles?

Which role and employment type are entry level candidates generally hired for?

Do employers hire more WFH vs WFO?

What are the demographics of the employees?

Are employers hiring higher experience level for roles?

Does company size matter when it comes to experience level?

How does a company hire employees based on demographics?

These questions are answered with queries, and some visualizations.

## Conclusion

The overall purpose of this report was to answer the question: Has the economic downturn this year caused a reduction in demand for AI/ML jobs? From the analysis, it was found that there is a trend. As the queries and visualizations were able to explain, there is a large demand for

Taoheed King

INST414

professionals for all experience levels. There is a very large demand for experts specifically in medium sized companies, but large size companies are hiring the most junior talent. There also happen to be a lot of demand for jobs in AI/ML field in Europe and the United States with salaries increasing the most this year. With this information new grads and professionals in this field are able to better fine tune their job search weather to companies or areas that demand roles they are interested in.