

Course 1: Foundation of Information

Assignment - Job Market Analysis

PART - A [Marks 15]

Project 1: Analysis of job market data to explore the open positions related to the jobs in the field of data or machine learning in a particular region

Objectives & Assignment Description:

(1) Collect and use job market data to explore data related positions or machine learning related positions in a particular region (e.g., US, India). Suggested websites for this assignment are:

- Indeed
- Glassdoor
- Naukri
- Monster

You will have to use appropriate keywords (for e.g., “data scientist”, “data engineer”, “ML engineer”) to extract information on the positions available on websites of your choice.

While it is not compulsory to do so, you could use web scraping techniques introduced in this course to collect data from these websites. Also, note that you are not limited to the sites mentioned above. Identify one job that you aspire to transition into and identify the skills required for the job

Note: Any one of the recommended websites can be used to extract data. Or you can select any job-related website of your choosing. You may select 1 keyword of your choice. Create a professional report in a word document that is 2 to 4 pages long by extracting the necessary information. Submit it in PDF format. Submissions do not need to include a code file.

Please make sure to use Web scraping technique for data extraction.

Requirements:

Based on the data collected, prepare a two-page report detailing:

- a) **Data collection method** (include the sample size & process of data collection) [Marks 3]
- b) **Market Data Visualization** [Marks 10]
When there are large amounts of data available it is frequently useful to create a data visualization. Use the plotting tools introduced in the class or spreadsheet tools to create visualizations for at least any two of the data elements listed below. Use tabular format to represent any data that is not in a graphical format. Graphic can include any combination of histograms, bar charts, pie charts or other depictions. While it is not required, it might be interesting to you to create multivariate graphs such as but not limited to location and salary on the same graph.
 - Titles of positions available

- Locations where the roles are offered (including remote)
 - Type of positions (Full-time or Part-time)
 - Key skills required for these positions (use appropriate visualization techniques to present your findings)
- c) **Your ideal job** (job title and relevant skills required) [Marks 2]

HAPPY LEARNING!