IWD- Redefine Possible Capstone Project :
Data Analytics Track

Linkedin Job Market Analysis

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Project Objective

To analyze job listings from LinkedIn in order to understand the distribution of roles, companies, work types, and countries hiring for data-related positions.

Key Questions :

What are the most in-demand job titles in the data field ?
Which companies and countries are hiring the most ?
What types of employment and work arrangements are offered ?

This analysis aims to support job seekers, HR teams, and career advisors by providing insights into the current data job market.

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Data Challenges

- **Missing Values:**
  work_type and employment_type were completely empty.

- **Non-standard Locations:**
  "New York, NY" — country name not directly available

- **Unstructured Job Descriptions:**
  Descriptions were long and unstructured.

Data Cleaning

Missing Work Type & Employment Type

Solution : Used the job link column to perform additional web scraping using Seleinum .
Visited each job URL and extracted the missing values from the original LinkedIn page.

Unstructured Job Titles

Solution : Standardized job titles into broader categories (e.g., Data Analyst, Data Scientist)
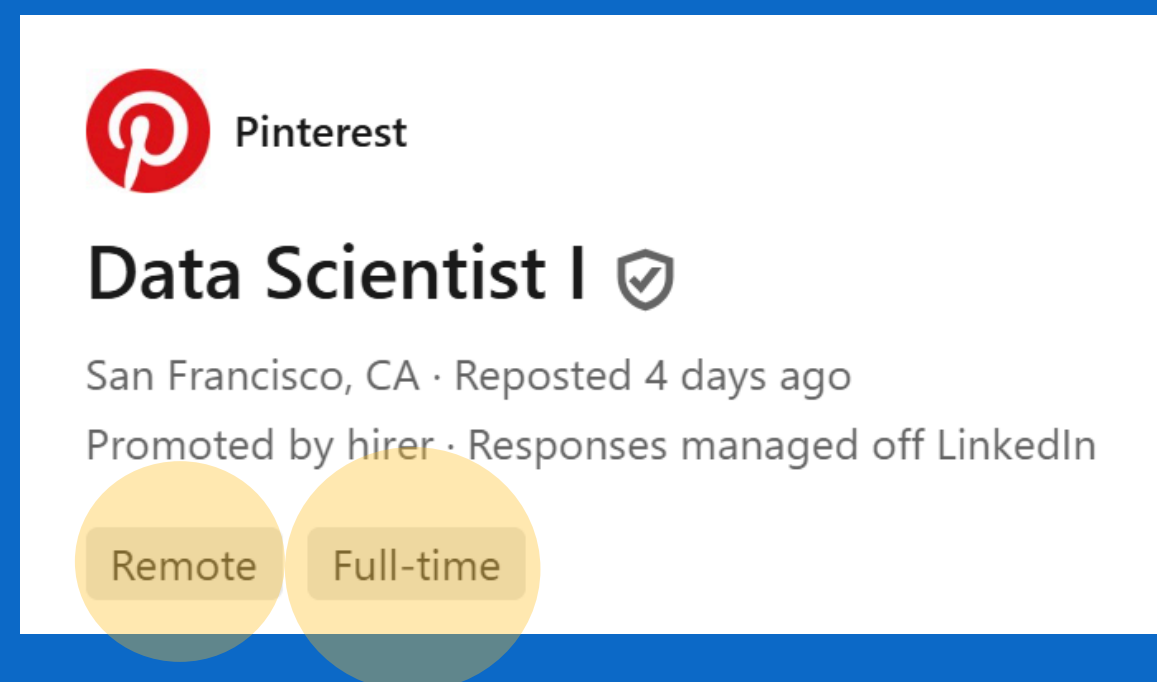for consistency.

Non-standard Location Format

Solution : Created a Python dictionary to map each location to its corresponding country.
This enabled consistent geographic grouping in the dashboard.

Missing Work Types

While scraping job posts from LinkedIn:
Some job posts did not specify a work type(remote, hybrid, onsite) — even on the original LinkedIn page.

Amazon
Data Engineer I, SCOT - AIM
Bengaluru, Karnataka, India · Reposted 2 weeks ago · Over 100
Promoted by hirer · Responses managed off LinkedIn
Full-time

had no explicit mention of work_type

Pinterest
Data Scientist I
San Francisco, CA · Reposted 4 days ago
Promoted by hirer · Responses managed off LinkedIn
Remote   Full-time

Why I didn't fill them manually:
After reviewing several of these jobs, I noticed that:
Some companies decide work type later, based on candidate location or experience level.
Other roles were listed as "open to discussion" or "flexible".
Decision:
Kept the work_type as (Unspecified) to reflect real-world ambiguity.
This avoids making incorrect assumptions and keeps the data truthful and unbiased.

Key Dashboard Elements :

Job Roles Distribution:
Top demanded roles (e.g., Data Analyst, Data Scientist, ML Engineer)

Work Type Breakdown :
On-site vs Remote vs Hybrid vs Unspecified

Geographic Distribution :
Jobs by country (mapped using cleaned location data)

Employment Type : Full-time, Contract, Internship, etc.

Top Hiring Companies : Companies with highest number of listings

THANK YOU