End-to-End Data Analytics & Visualization Project
(Data Professional Survey Analysis Using Power BI)

By

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Project Objective

The objective of this project is to analyze survey responses from data professionals to uncover trends in compensation, tool usage, career difficulty, and job satisfaction, and to present these insights through an interactive Power BI dashboard.

Dataset Overview / Description

- Survey responses from **630 data professionals**
- Data covers:
  - Job titles
  - Average salary
  - Programming language preferences
  - Country of respondents
  - Perceived difficulty entering the data field
  - Salary and work-life satisfaction

Data Type

- Structured survey data

Tools & Technologies

- **Power BI** – Data modeling and visualization
- **Power Query** – Data cleaning and transformation
- **DAX** – KPIs and calculated measures

Methodology (End-to-End Process)

Data Preparation

- Cleaned and standardized raw survey responses
- Handled missing values and inconsistent job titles
- Created calculated columns and measures

Data Modeling

- Built a structured data model for accurate filtering and aggregation

Analysis & Visualization

- Designed interactive visuals to highlight trends and comparisons
- Focused on insight-driven storytelling rather than static charts

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Key Insights

- Data Scientists earn the highest average salary (~$94k), while Data Analysts earn ~40% less.
- Python is the dominant programming language across all data roles.
- Most respondents perceive breaking into data as moderately difficult.
- Work-life balance satisfaction (5.74/10) exceeds salary satisfaction (4.27/10).

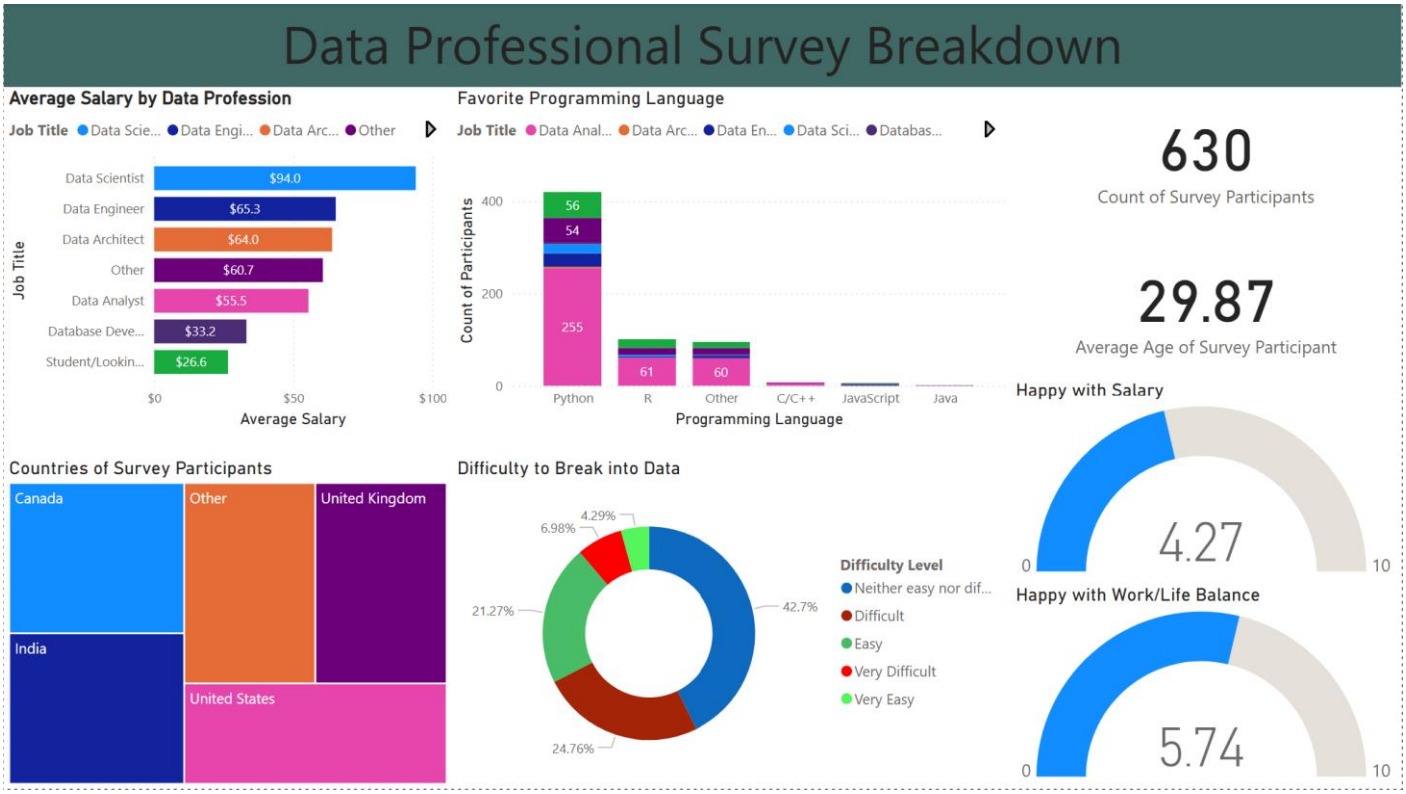
Recommendations

- Aspiring professionals should prioritize Python and advanced skill development.
- Organizations should improve compensation structures to address low salary satisfaction.
- Entry-level candidates should leverage structured learning and real-world projects to enter the field.
- Employers can retain talent by balancing compensation with flexible work policies.

Key Takeaway

This project demonstrates the ability to perform end-to-end data analysis from raw data preparation to business focused insights using Power BI and industry standard analytics practices.

Dashboard Preview



Screenshots from the interactive Power BI dashboard.