

## JOB 4: Data Scientist

### Job Overview

A Data Scientist is responsible for analyzing and interpreting complex data to help organizations make informed decisions. They use statistical methods, machine learning models, and programming skills to extract insights from structured and unstructured data.

### Required Skills for data scientist

1. Python
2. Machine learning
3. SQL
4. Statistics

### Skills Information:

1. **Python** – A versatile programming language widely used for data analysis, machine learning, and automation.
2. **Machine Learning** – Techniques and algorithms for building predictive models and making data-driven decisions.
3. **SQL** – A query language for managing and analyzing structured data stored in databases.
4. **Statistics** – Understanding probability, hypothesis testing, regression analysis, and other statistical methods.

### Skill Learning Resources

- **Python:** Python for Data Science Handbook (Book), Real Python, DataCamp Python Courses
- **Machine Learning:** "Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow" (Book), Coursera Machine Learning by Andrew Ng, Kaggle
- **SQL:** Mode Analytics SQL Tutorial, "SQL for Data Science" (Coursera), LeetCode SQL Problems
- **Statistics:** OpenIntro Statistics (Book), "Think Stats" by Allen B. Downey, StatQuest (YouTube)

**Difficulty Level**

**High** – Requires strong analytical skills, problem-solving abilities, and experience with large datasets and modeling techniques.