



UNITED STATES  
DATA SCIENCE  
INSTITUTE

A woman with brown hair and black-rimmed glasses is sitting at a desk, looking at a laptop. She is wearing a light blue and white striped button-down shirt. Her hand is resting on her chin, and she has a thoughtful expression. The background is a bright, out-of-focus office space with large windows.

FACTSHEET

# DATA SCIENCE CAREERS IN 2025



"The Global Data Volume is expected to reach a whopping **175 zettabytes** by **2025**"

-IDC

This rapid growth in the amount of data generated also indicates an increase in the demand for skilled **data science professionals** who can efficiently handle this data and transform it into actionable insights.

**Data Science**, in brief, refers to the field of study that deals with drawing meaningful insights from raw data.

Though **data science** has existed in this world for quite some time now, it is still in its growing phase. New tools and trends are coming up regularly, and data science technology is continuously evolving giving way to several job opportunities and innovation furthermore.

**"Data Science Skills** will drive a **27.9%** surge in **employment** in the field through **2026**"

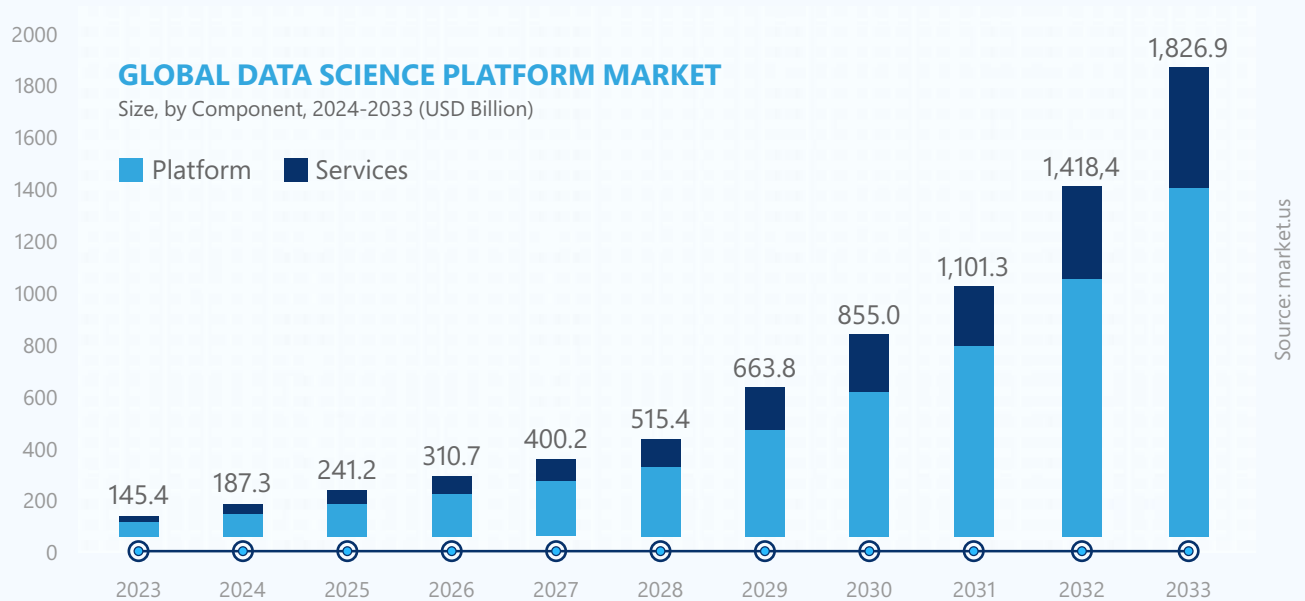
-US Bureau of Labor Statistics

# DATA SCIENCE OVERVIEW – 2024

- **Data Science** Market Size in 2024 - **USD 133.12 billion.**  
-Fortune Business Insights
- Annual average salary of **data scientists** - **\$158,218.**  
-Glassdoor
- **83%** of **data scientists** regularly use **machine learning** methods for their regular tasks.  
-Kaggle
- **59%** of organizations acknowledge **big data** and **analytics** adoption for gaining competitive advantage.  
-IBM
- Organizations leveraging **data-driven decisions** are 23 times more efficient in acquiring new customers and 6 times more efficient in retaining them.  
-McKinsey & Company
- **Python** is the most popular programming language in 2024 with **34%** of **data scientists** using it in their job.  
-Anaconda's Survey 2024
- **65%** of organizations understand the value of **data-driven decision-making** for the success of their business  
-Deloitte
- Companies using **analytics** improve their performance and earn **126%** higher profit.  
-McKinsey & Company
- Companies using advanced **analytics** in their supply chain were able to reduce their supply chain cost by **50%.**  
-Accenture

These facts show the importance of **data science** in taking businesses forward.  
***But what does the future of data science look like?***

# THE STATE OF DATA SCIENCE IN 2025



The Market Will  
Grow At the CAGR of: **28.8%**

The Forecasted Market  
Size for 2033 in USD **\$1,826.9B**

As we enter 2025, the global **data science** platform market is expected to reach **\$241.2 billion** growing at a **CAGR** of **28.8%**.

This growth in the **data science** market can be directly attributed to the increase in the amount of data generated which is going to reach **~180 zettabytes by 2025**, as predicted by *IDC*.

- The demand for **data scientists** in 2026 will be over by **50%** more than the supply in the US.  
-McKinsey Global Institute.
- The **data science** and **analytics** jobs constitute the fastest-growing job roles with a projected growth rate of **15%** through **2025** to **2029**.  
-US Bureau of Labor Statistics
- **Healthcare** is one of the top industries widely adopting **data science** into its operation and the **global healthcare analytics market** is expected to reach **\$85.9 billion** by **2025**.  
-Markets and Markets

# DATA SCIENCE ACROSS VARIOUS INDUSTRIES



## FINANCE & BANKING

Projected market size  
**\$10.26** billion by 2025  
-precedenceresearch

**88%** of financial institutions think **AI** will transform their business operations and interaction with customers  
-Deloitte

**Data-driven** banks have the chance to gain **5-10%** higher return on equity (ROE)  
-McKinsey



## HEALTHCARE & MEDICINE

Projected market size  
**\$57.79** billion by 2025  
-precedenceresearch

Adopting big data analytics has the potential to minimize industry expenditure by **\$300** billion in the US.

HealthIT Analytics survey revealed **89%** of healthcare professionals have already started investing in **big data analytics** and **AI**



## RETAIL & E-COMMERCE

Projected market size  
**\$10.6** billion by 2025  
-market.us

E-commerce companies using data science for personalization can increase revenue by up to **5-15%** and increase ROI by **10-30%**  
-McKinsey & Company

**AI-powered** chatbots have helped retailers reduce customer support costs by **70-80%**  
-market.us



# DATA SCIENCE TRENDS TO WATCH OUT FOR



## INCREASED USE OF GENERATIVE AI

**GenAI** will be used to generate synthetic data to train data science models.



## EDGE COMPUTING

It will help process data right at the source in real time and thus reduce delay and use of bandwidth.



## AUGMENTED ANALYTICS

Various data science processes can be automated and augmented using advanced **AI and ML** technologies.



## GRAPH ANALYTICS

It examines how data are interconnected and can be used for social network analysis and fraud detection.



## QUANTUM COMPUTING

Even though it is at a starting stage, it will start affecting data science to solve difficult problems at a faster rate.



# JOB MARKET AND SALARY TRENDS FOR 2025

## TOP 7 DATA SCIENCE ROLES TO EXPLORE IN 2025

The **data science** industry has given rise to several job profiles from renowned **data scientists** to top-rated **data analysts**. Each of these roles performs specific data science jobs catering to different needs of the organizations.

JOB ROLE	RESPONSIBILITIES	Annual Average Salary in US in 2024*
MACHINE LEARNING ENGINEER	Develops and deploys <b>machine-learning</b> models and transforms <b>machine-learning</b> algorithms into practical applications.	<b>\$161,286</b>
DATA SCIENTIST	Looks after data science projects; builds machine learning models; and creates <b>data-driven</b> solutions.	<b>\$158,218</b>
BUSINESS INTELLIGENCE ANALYST	Fosters organizations to make strategic business decisions using data.	<b>\$123,284</b>
DATA ANALYST	Analyzes data and provides valuable insights to support <b>decision-making</b> .	<b>\$108,336</b>
DATA ENGINEER	Design & maintain the data pipelines by developing proper infrastructure to facilitate data collection, storage, and preparation of data for analysis.	<b>\$104,088</b>
CLINICAL DATA MANAGERS	Gathers data from a variety of medical research projects and unites healthcare training with math, programming, and computer science.	<b>\$137,500</b>
DATA ETHICS SPECIALISTS	Checks all data are used in a responsible and ethical manner.	<b>\$121,242</b>

Source: Glassdoor

### 3 POPULAR DATA SCIENCE LEADERSHIP ROLES



#### CHIEF DATA OFFICER:

Top-most senior data science leadership role responsible for developing and implementing the organization's data strategy.

**EXPECTED ANNUAL AVERAGE SALARY:**

**\$334,200**

(salary.com)



#### CHIEF DATA SCIENTIST:

Works with C-suite executives to solve the most pressing data challenges

**EXPECTED ANNUAL AVERAGE SALARY:**

**\$277,700**

(salary.com)



#### DIRECTOR OF DATA SCIENCE:

Leads a team of data scientists and is responsible for setting goals, delegating tasks, and analyzing reports.

**EXPECTED ANNUAL AVERAGE SALARY:**

**\$202,447**

(salary.com)

## DATA SCIENCE ROADMAP

**Data Science professionals** belong to highly technical profiles with knowledge of their industry and business. So, having a graduate or post-graduate degree in the following field is recommended:

**Mathematics**



**Computer Science**

**Statistics**



**Engineering**



Educational Requisites in the United States (Source: Indeed)		
Bachelor's degree	Master's degree	PhD
71%	24%	5%

## TECHNICAL SKILLS

- **PROGRAMMING LANGUAGE:**  
Proficiency in different programming languages such as Python, R, SQL, etc.
- **MACHINE LEARNING:**  
Machine learning is a field of computer science that gives computers the ability to learn without being explicitly programmed.
- **STATISTICS AND MATHEMATICS:**  
Data scientists must have a strong foundation in statistics to perform hypothesis testing, experimentation, and data modeling.
- **DATA MANIPULATION AND ANALYSIS:**  
Exploratory Data Analysis techniques to draw insights and patterns from data.
- **DATA VISUALIZATION:**  
Matplotlib, Seaborn, Tableau, etc.
- **BIG DATA TECHNOLOGIES:**  
Hadoop and Apache Spark for processing large datasets
- **CLOUD COMPUTING:**  
Familiarity with cloud computing platforms like AWS and Azure to deploy and manage data science projects.

## NON-TECHNICAL SKILLS:

- **CRITICAL THINKING**
- **GOOD COMMUNICATION**
- **PROBLEM-SOLVING SKILL**
- **A GOOD TEAM PLAYER**
- **LEADERSHIP SKILLS**

## DATA SCIENCE TOOLS MOST USED BY PROFESSIONALS

### PROGRAMMING LANGUAGES

- Python, R, SQL, Julia

### DATA PROCESSING AND ANALYSIS

- Apache Spark, Apache Hadoop, Pandas

### MACHINE LEARNING LIBRARIES

- SciKit-learn, TensorFlow, Kera

### DATA VISUALIZATION TOOLS

- Matplotlib, Seaborn, Tableau

### BIG DATA PLATFORMS

- Apache Spark, Apache Flink

### DATA PREPARATION AND ETL TOOLS

- Talend, Alteryx, Trifacta

### CLOUD SERVICES FOR DATA SCIENCE

- AWS, GCP, Microsoft Azure

# TOP COMPANIES HIRING DATA SCIENTIST:

The **data science** market is currently seeing a boom. As per *Glassdoor*, the current **data scientist's** salary in the US is **\$158,218** per annum and we can expect it to only increase in the year **2025**.

amazon

Deloitte.

Spotify

cisco

Microsoft



Uber

Google

VISA

facebook

## UPSKILLING IN DATA SCIENCE? WHAT'S THE BIG DEAL ABOUT

What you learned a few years ago might not be useful today! With ever-surgingly data comes the need for newer and mean techniques to counter and handle the numbers like a pro.

This is why **Upskilling** is the key to a thriving career in **data science**; enabling you to stay relevant and making you indispensable.

Furthermore, the advent and advancement in **Artificial Intelligence** technology has transformed the data science process as well.



## TOP 5 DATA SCIENCE CERTIFICATIONS

### ➤ **Applied Data Science with Python Specialization - University of Michigan**

Learn to use Python for data science tasks such as data cleaning, analysis, and visualization.

### ➤ **Graduate Certificate in Data Science – Stanford University**

A graduate-level certificate program that teaches students the skills and knowledge they need to become successful data scientists.

### ➤ **Certified Lead Data Scientist (CLDS™) – USDSI<sup>®</sup>**

The United States Data Science Institute offers this certification for data scientists with experience in leading and managing data science teams.

### ➤ **Certified Senior Data Scientist (CSDS™) – USDSI<sup>®</sup>**

This certification program is for data scientists with extensive experience in all aspects of data science, including data engineering, machine learning, and statistical analysis.

### ➤ **Google Data Analytics Certificate**

An online certificate program that teaches students the skills and knowledge they need to become entry-level data analysts.

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## TOP 5 DATA SCIENCE DEGREE COURSES

### ➤ **Bachelor of Science in Computational Data Science - Georgia Institute of Technology**

A program that combines computer science and data science to teach students how to develop and implement data-driven solutions to complex problems.

### ➤ **Master of Science (SM) in Data Science - Harvard University**

Enhance your capabilities in statistical modeling, computational science, machine learning, optimization, and a wide range of application domains.

### ➤ **Bachelor of Science in Computer Science (Data Science Concentration) - Southeastern Louisiana University - College of Science and Technology**

The course integrates computer science, maths, and information technology to assist students with data science concepts

### ➤ **Master of Science in Machine Learning - Carnegie Mellon University**

The program focuses on machine learning, including topics such as supervised learning, unsupervised learning, and reinforcement learning.

### ➤ **Master of Science in Data Analytics – University of Nevada**

Data Science professionals learn data analysis, data visualization, predictions, and discoveries

# MAKE **BIG** MOVES NOW!



Am I intrigued by statistics and programming?



Am I willing to constantly upskill?



Do I really enjoy solving problems?



If data science wasn't an extremely popular and lucrative option, would I still go for it?

Source: data-flair.training

Ask yourself the right questions and dive right into building a lasting career in **data science** with these easy steps. Fasten your career-strengthening game plan by leveraging the benefits of reading books about all things data science, and beyond. Build strong data science models and projects and ramp up your employability and portfolio enhancements with futuristic skills for a greater data science career progression.

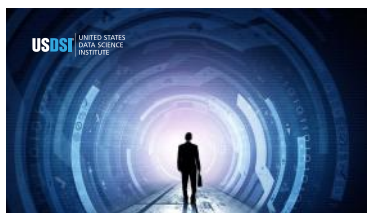
## SKILL-UP-TO LEVEL-UP!

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## About

The United States Data Science Institute (USDSI®) is deemed a high-end and in-depth technical certification provider for Data Science Professionals and leads the global panorama in Data Science Organizational Transformation, Innovation, and Leadership. USDSI® researches, designs, and certifies personnel who enter or engage in various emerging Data Science Majors.

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