

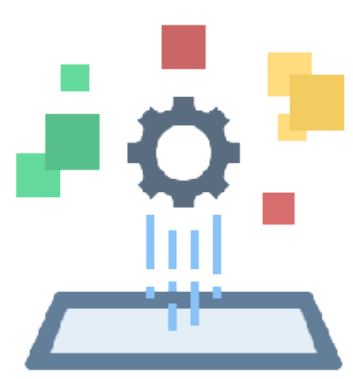
# Certificate Program Cloud Data Engineering

6-MONTH | HYBRID PROGRAM

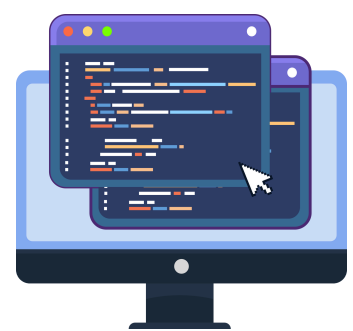
K O L K A T A



## Program Highlights



The most comprehensive program for the most in demand skills of Data Engineering



Hands-on training in SQL, Databricks, Spark, Power BI, AWS, Azure and Google Cloud



Experienced faculty pool of industry practitioners & seasoned academicians



Career support includes mock interviews, CV building and Job assistance

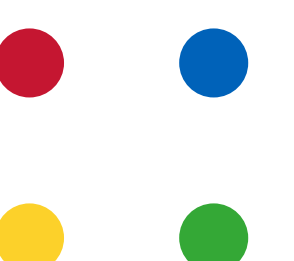
## Why choose this program?

- ▶ Acquire the hottest skills without leaving your job from Praxis, the pioneers in Data Science education
- ▶ Be mentored by top faculty and engage in experiential learning
- ▶ Participate in knowledge sessions with industry practitioners of Data Engineering and Data Science
- ▶ Be a part of the distinguished, global Praxis alumni network of Data Science practitioners

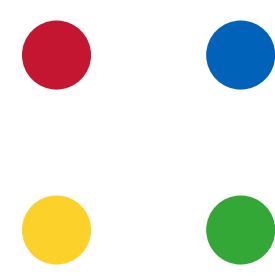
## Learning Outcomes

On successful completion of the program, learners will have:

- ▶ **Re-engineered** Enterprise Data platforms with both traditional and modern Data Architecture
- ▶ **Designed and implemented** scalable Data Pipelines and ETL processes
- ▶ **Applied** Big Data Technologies to process and analyze large datasets
- ▶ **Created** data lakes and data warehouses using Cloud platforms to managing appropriate business cases







## Program Objectives

Train learners in the cutting-edge tools for Data Analysis, Data Stream Processing, Data Pipelines & Workflow Management	Guide learners in practical applications of Data Governance & Data Operations on Cloud Platforms
Equip learners with technical skills, problem-solving abilities, and collaborative work practices	Prepare learners for key roles such as Data Engineer, Big Data Architect and Cloud Data Engineer



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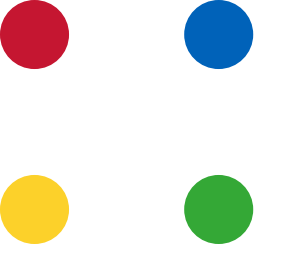


[www.praxistechschool.in](http://www.praxistechschool.in)



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# Data Engineering – The fastest growing tech career in the world

## Question

Who are Data Engineers?



## Answer

- Data engineering is the process of transforming raw data into valuable information.
- It's a critical process for businesses that want to make data-driven decisions and is assuming importance with the generation of massive volumes of data in our daily lives.
- Data engineers are professionals skilled in the collection, storing and parsing of data and utilizing machine learning to analyze the data.
- Their job requires a critical understanding of both software development tools as well as business skills required to convert that data into valuable information.

## Question

Why should you aspire for a career in Data Engineering?



## Answer

Data Engineering has emerged as a top career choice in today's data driven world. The supply demand gap in this rapidly growing sector is galloping, creating excellent opportunities for people with the right skills.

### Data Engineering Market Size:

**India: \$10.6 billion; to grow 4 times to \$42.3 billion by 2025**

**Global: \$29 billion; to grow to \$106 billion by 2025**

India will account for 41% of the Global DE market by 2025



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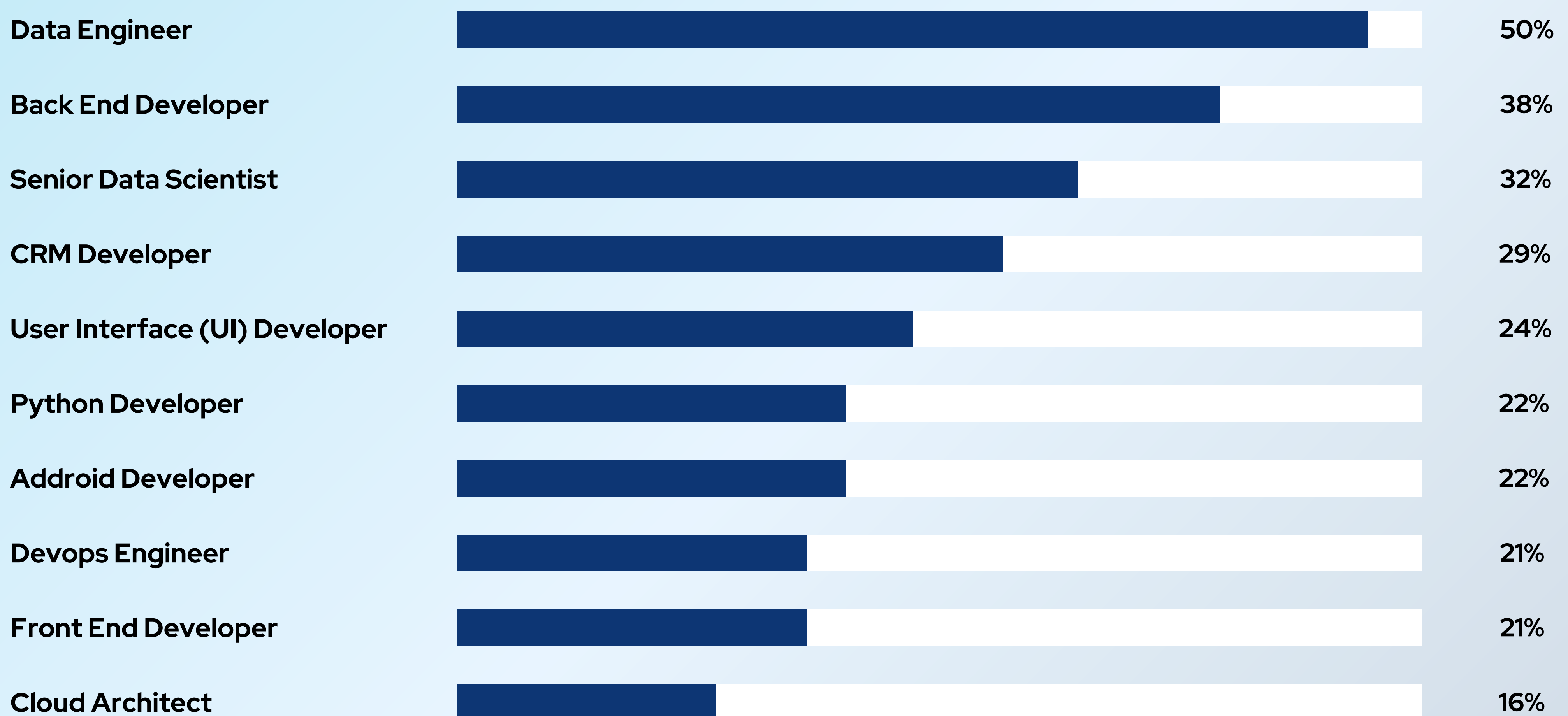
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## Fastest Growing Tech Occupations

### Year Over Year Growth



Source: Dice 2020 Tech Job Report



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## What are the different roles and profiles in Data Engineering?

### ▶ **Data Engineer:**

A data engineer lays down the foundation for data management systems to ingest, integrate and maintain all the data sources. The person has knowledge of databases and understands the needs of the business and its long-time data scalability needs. Tools: SQL, XML, Hive, Pig, Spark, etc.

### ▶ **Database Administrator:**

A database administrator has extensive knowledge of traditional as well as new-age NoSQL and Cloud databases, and ensures that the data generating and the data ingesting systems are up and running in a live business scenario.

### ▶ **Enterprise Data Architect:**

The enterprise data architect is responsible for visualizing and designing an organization's enterprise data management framework that describes the processes used to plan, specify, enable, create, acquire, maintain, use, archive, retrieve, control, and purge data. They have extensive knowledge of database tools, languages like Python, Java and Scala, and distributed systems like Hadoop.

### ▶ **ETL Engineer:**

The ETL engineer is responsible for maintaining the veracity of the data in the source and target systems. They ensure that the right kind of tools, permission and system pipelines are in place for smooth transfer of the data.[CS1] [CS1]This is too long. A large part is unnecessary.





## Program Coverage

The program, delivered in a hybrid mode, combines a contemporary curriculum with classroom lectures, hands-on labs, assignments and a compulsory capstone project.

### Topics Covered:

The 6-month program comprises three trimesters (2-months each) covering:

Trimester 1: Working with Traditional Data	Trimester 2: Managing Data Technologies and Cloud Platform	Trimester 3: Enterprise Business Applications
Introduction to Data Engineering and Big Data	Data Warehousing & Data Lakes	Data Governance, Security and Compliance
Relational Database & Structured Querying	Data Engineering with Python	Data Pipelines and Workflow Management
Data Analysis with Python	Design and Analysis of Algorithms	Machine Learning Operations (MLOps)
Business Intelligence	Stream Processing with Apache Kafka and Spark Streaming	Cloud Data Platforms (AWS, Azure, Google Cloud)



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# Capstone Project

The Capstone Project at Praxis is designed to bridge the gap between theory and practice. Learners get to work on relevant industry problems using the latest cutting-edge tools and technologies.

**Here's what sets Praxis' Capstone Project apart:**

## ▶ **Real-World Problems:**

Be part of projects that address current needs in the hi-tech industry. Dive into real problems faced by industry

## ▶ **Cutting-Edge Tools:**

Get hands-on experience with the latest technologies shaping the future of Data Science and Data Engineering.

## ▶ **Industry-Ready Skills:**

Develop in-demand data skills applying the latest engineering technologies employers are looking for.

## ▶ **Expert Mentorship:**

Learn from experienced faculty as well as be mentored by Alumni in key positions who will guide you every step of the way.

The Capstone project is a platform for the cohort to demonstrate their knowledge, skills and problem solving abilities in front of a mixed audience from academia and industry.



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## Who should sign up for this program?

- ▶ Working professionals aiming to transition their career into Data Engineering
- ▶ Recent graduates in technical fields looking to specialize in Data Engineering
- ▶ Students of 3rd year and above in Engineering or final year graduation students of Computer Science, IT, Data Science, or MCA with good academics

## Program Fees

Application Fee	Rs. 500
Program Fee	Rs. 99000 (incl. 18% GST)

## How to enroll in the program



Walk into Praxis' office at 10D Picasso Bithi (Hungerford St), Near Birla High School, Kolkata - 700017 for a personalized interaction



Call Now @ 7676160161 to have a discussion with the counsellors



Visit [www.praxistechschoo.in](http://www.praxistechschoo.in) and apply

## Scholarships

**Diversity Scholarship (for women students):  
INR 7500**

**Merit Scholarship (for students with 80%  
and higher marks in 10th and 12th): INR 7500**

Students can avail any one of the above scholarships. Praxis reserves the right to grant scholarship based on the criteria mentioned above.



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