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Edureka 2019 Tech Career Guide

YOUR PERSONALIZED ROAD-MAP TO A CAREER PATH IN

BIG DATA

A report by Edureka

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ABOUT EDUREKA

Edureka is a global e-learning platform for live, instructor-led training in trending technologies. We offer short term courses supported by online resources, along with 24x7 lifetime support. We have an unwavering commitment to help working professionals keep up with emerging technologies. With an existing learner community in more than 100 countries, Edureka's vision is to make learning easy, interesting, affordable and accessible to millions of learners across the globe.

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INTRODUCTION

2019 is going to be a momentous year for the technology industry. While there is a looming fear of automation eating away jobs, the job forecast looks bright with most large companies looking to grow their ranks this year. This is a welcome change from the bleak IT jobs forecast the last few years. Futuristic technologies such as Artificial Intelligence, Blockchain, RPA, etc. are finding widespread applications in the real-world, not just by startups in experimental projects, but even by multinational information technology companies.

Ironically, this positive job outlook is juxtaposed with a rearing skill gap in the technologies that are forecasted to lead job creation in the coming years. The technology industry is filled with anecdotes of emerging technology jobs lying vacant while the vast majority of applicants are knocking on employers' doors with a desire to bag the emerging tech jobs but with redundant skill sets. Applicants dream of job titles and careers in future technologies such as Big Data, Cloud, AI and Data Science but do not know how to achieve them.

To bridge this skill gap, the 2019 edition of the Edureka career guide not only lists the cutting-edge technologies that are expected to lead job creation in 2019 but also shares the exact learning path that job aspirants can follow to bag their dream jobs in these future technologies.

The Edureka Tech Career Guide 2019 is a one of a kind career path guide that gives technology professionals customized learning paths for in-demand technologies, namely, Machine Learning, Big Data, Cloud Computing, DevOps, Blockchain and Cybersecurity. The career guide also touches upon industry outlook, job trends, salaries, and learning hours for these technologies in addition to sharing findings of a survey on the most-sought after technology jobs this year.

TRENDING TECHNOLOGIES OF 2019

2019 began with a number of industry and career portals announcing survey results listing the most popular technologies in 2019 and their job outlook. We decided to test the sentiment on the ground and asked technology professionals spread across the globe, which job titles they aspire to land in the future. Around 500 technology professionals in various stages of their career answered our survey, and based on the results, these are the most-sought after technology jobs of 2019 as chosen by technology professionals.

AI / MACHINE LEARNING ENGINEER

DATA SCIENTIST

CLOUD ARCHITECT

BIG DATA ARCHITECT

HADOOP DEVELOPER / ADMIN

DEVOPS ENGINEER

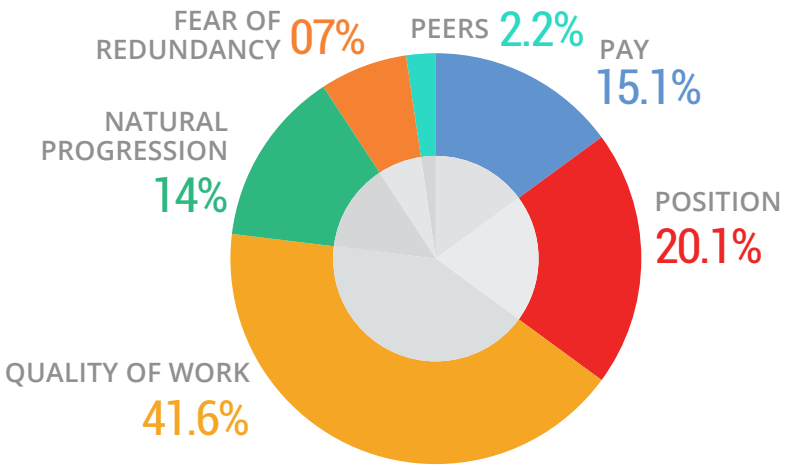
BLOCKCHAIN ENGINEER

CYBERSECURITY ENGINEER

MOTIVATION FOR CAREER UPGRADE

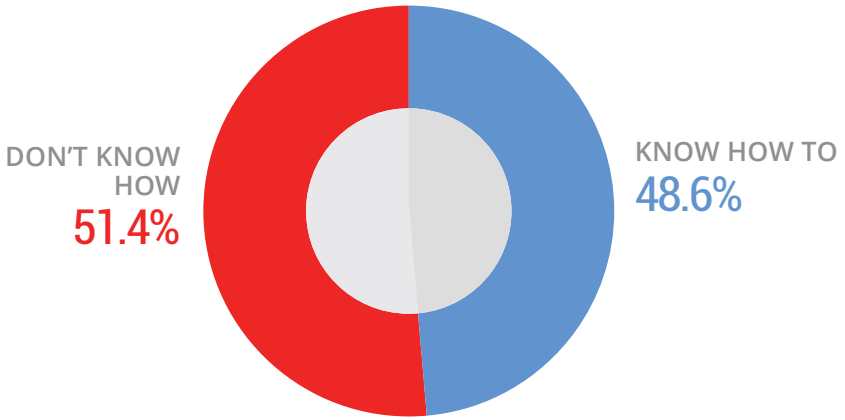
Before laying out the career paths for each sought-after technology job roles, let's try and understand the motivations of technology professionals to seek these job titles.

Our survey results showed that the primary motivation to seek jobs in future technologies is **improving the quality of their work and projects. Getting promoted to a better position at work and bagging a bigger paycheck** are the other prominent reasons techies said influenced their desire to upgrade to in-demand technology careers. Natural progression from their current roles, fear of redundancy, influence by peers were also quoted as reasons by technology professionals to move to in-demand technologies.



Motivation for career upgrade

We also asked the survey participants whether they knew how to bag the jobs that they were aspiring for. While a little more than 51% of them said that they don't know how to bag their dream job, 48.6% said they do know how to bag the job they were aspiring for. This is reflective of the IT industry where every technology professional wants a lucrative and rewarding job profile in a trending technology but more than half of them do not know how to achieve it.



Do they know how to bag their dream job?

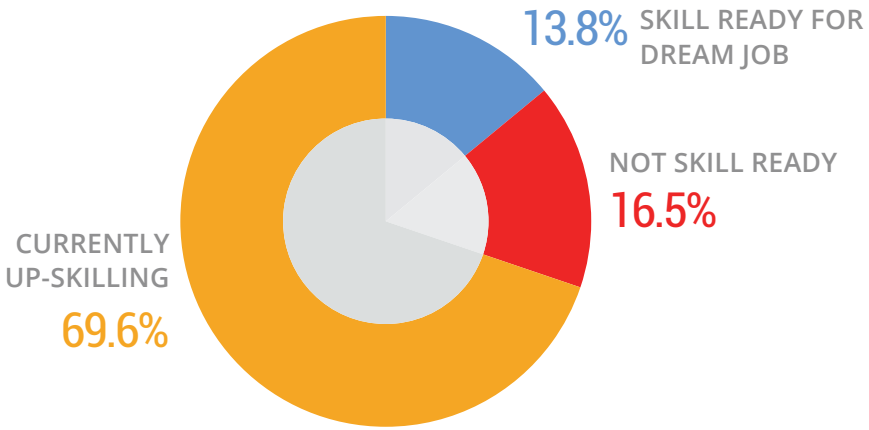
But, when the question came to skills to match the jobs the professionals were aspiring for, the survey results had a different albeit interesting story to tell.

- Only 13.8% of the surveyed technology professionals said they were skill-ready for their dream job.

- 16.5% of them said that they felt they were not skill-ready for the job they were aspiring for.

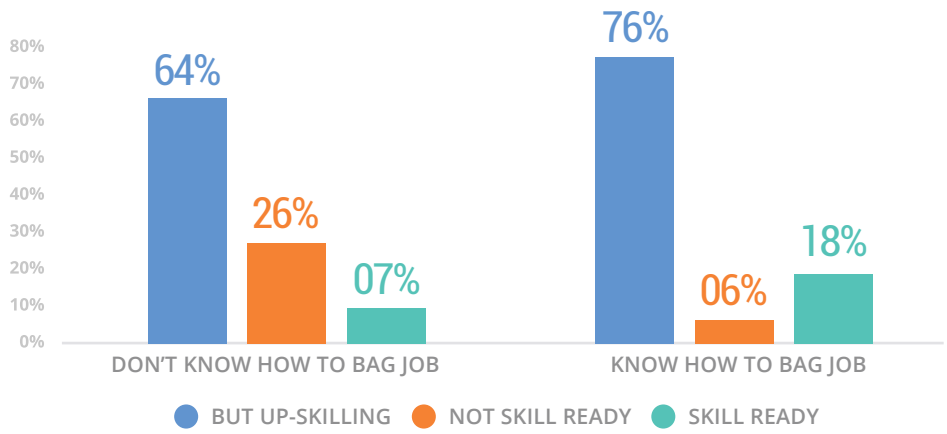
- But, what's more interesting is the fact that 69.6% of the survey participants said they were currently up-skilling for the job of their dreams.

We can safely conclude that awareness about the need to up-skill for jobs of the future is high enough among the IT workforce but **they are lacking a clear roadmap and learning path to the jobs of their future** as can be inferred from the previous chart .



Are professionals skill-ready for their dream job?

Significantly, majority of those who said that they know how to achieve the jobs they were aspiring for, have already up-skilled for it or are in the process of up-skilling. So up-skilling clearly plays a major role in knowing the learning path to ones dream career.



Skills Vs knowing how to bag their dream jobs

Up-skilling with future skills is no longer a choice for today's technology professional and in fact, a previous skill report by Edureka stated that a tech professional needs to up-skill 15-20 times in their career if they wish to stay relevant in today's competitive and ever-evolving IT industry. Professionals from all industries and experience levels are feeling the need to up-skill and expert-curated information - on which technologies to master, tools to learn and the correct learning path to follow - can go a long way in helping them up-skill for their dream jobs in a structured way.

The Edureka Tech Career Guide 2019 aims to provide this information by serving as a handy guide to those technology professionals who do not know the learning path to their dream career. It also aims to provide the recommended learning path to those who have already started their learning journey and provide course correction if needed.

BIG DATA ENGINEER / ARCHITECT CAREER PATH

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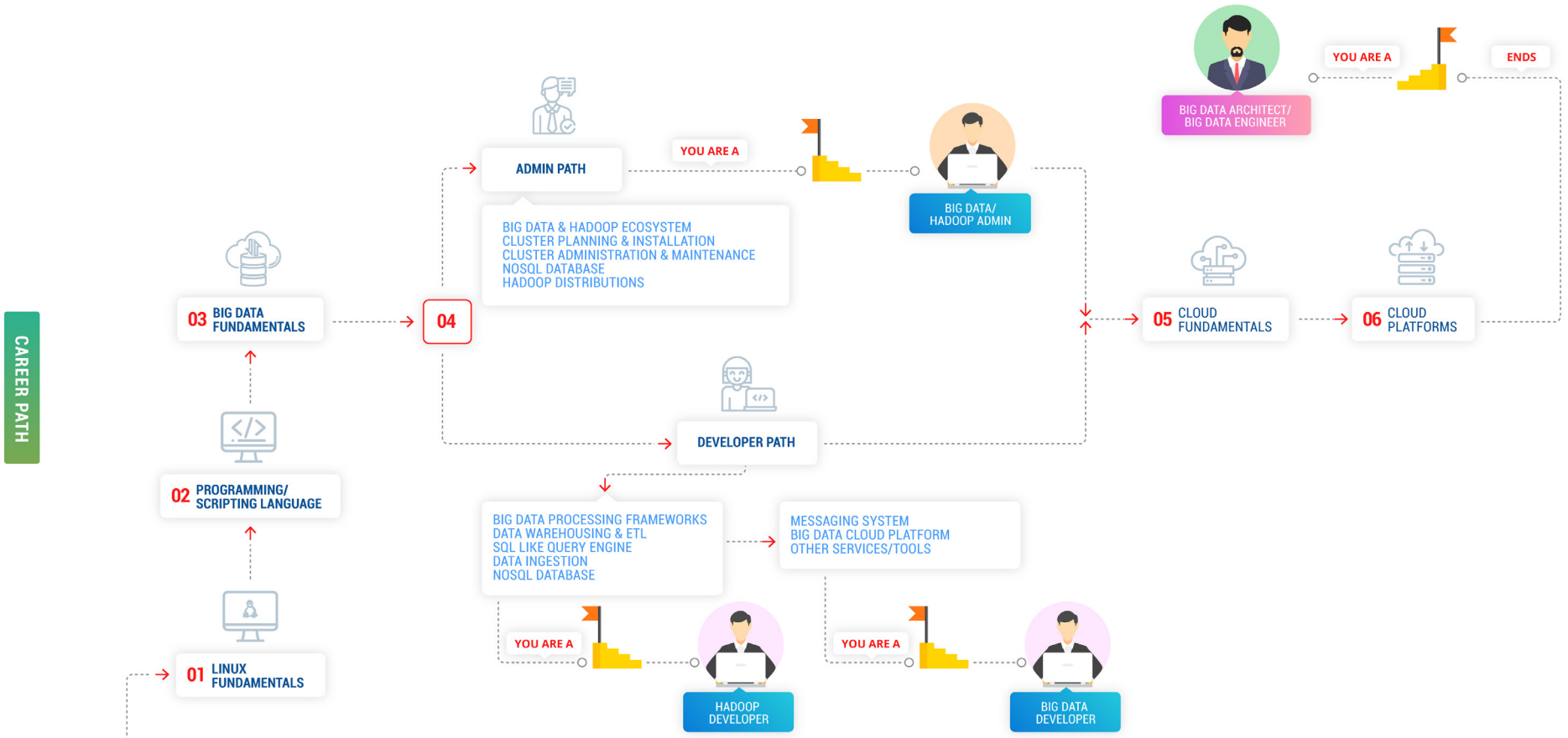

STARTS

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BIG DATA FUNDAMENTALS - PATH DIVISION

LINUX FUNDAMENTALS

PROGRAMMING/ SCRIPTING LANGUAGE

Java, Scala or Python
Bash Scripting

BIG DATA FUNDAMENTALS

4.1 DEVELOPER PATH

i. **Big Data Processing Frameworks**
Hadoop
Spark
Storm

ii. **Data Warehousing & ETL**
Hive
Talend
Spark (SparkSQL & Spark RDD APIs)

iii. **SQL Like Query Engine**
Impala
Hive

iv. **Data Ingestion**
Sqoop
Flume
Spark Streaming
Kafka Streaming

v. **NoSQL Database**
HBase or Cassandra or MongoDB

vi. **Messaging System**
Kafka

vii. **Big Data Cloud Platform**
Amazon EMR or Azure HDInsight

viii. **Other Services/Tools**
Zookeeper
Oozie
Ambari

4.2 ADMIN PATH

i. **Big Data & Hadoop Ecosystem**
HDFS
MapReduce
YARN
Hive/Pig
Spark
Storm
Zookeeper
Oozie
Kafka

ii. **Cluster Planning & Installation**
Big Data Cluster Setup & Configuration
Capacity Planning
Cluster High Availability & Disaster Recovery
Cluster Connectivity & Security (Kerberos)

iii. **Cluster Administration & Maintenance**
Performance Tuning & Optimization
Data backup & Recovery
Hadoop User Management
Permission Management
Log Management & Monitoring

CLOUD FUNDAMENTALS

iv. **NoSQL Database**
HBase or Cassandra or MongoDB

v. **Hadoop Distributions**
Cloudera or Hortonworks or MapR

CLOUD PLATFORMS

AWS or Azure or Google Cloud Platform

BIG DATA INDUSTRY OUTLOOK & OPPORTUNITIES

Big Data has emerged as one of the hottest technologies to upskill in 2019. Big Data Engineers and Architects are in high demand as industries across the spectrum, right from automobile, healthcare, education to financial services, have started adopting Big data. Even governments and the public sector have woken up to this reality and adopted Big Data such as the Indian Government's usage of Big Data Analytics to identify tax evaders, and in another case to implement GST. This interest in Big Data is expected to give this technology a further impetus by getting more companies to adopt it into their products.

By 2018 there was a shortage of

1,500,000 data experts

- As per McKinsey

The Hadoop Big Data analytics market is projected to grow to

USD 40.69 Billion by 2021

*Source MarketsandMarkets

Average Salary of Big Data Hadoop Developers is

$147,953 per annum

*Source Indeed.com salary data

Some of the companies that are hiring for Big Data Engineers

AT&T, wipro, EY Building a better working world, accenture, VISA, amazon

are some of the companies which have openings for ML Engineer.

DATA ENGINEER SALARY

IN: Rs 344,241 - Rs 1,814,512

US: $63,292 - $130,455

AVG. SALARY EARNED BY BIG DATA ARCHITECT IS AROUND

$147,953 per annum

*Source Popular Job Portals

Resources to Get Started with Big Data

BIG DATA TUTORIAL:
https://youtu.be/zez2Tv-bcXY

HOW TO BECOME A BIG DATA ENGINEER:
https://youtu.be/GRFQxd_0k3M

ALL YOU NEED TO KNOW ABOUT BIG DATA:
https://www.edureka.co/blog/big-data-tutorial

CAREER PATH TRAINING:
https://www.edureka.co/masters-program/big-data-architect-training

BIG DATA LEARNING PATH

Skills not certificates are going to matter in the IT industry of the near future and it's especially true in the case of hot technologies like Big Data where there aren't enough skilled technology professionals to fill the jobs that are lying vacant. Now that you know what is the exact learning and career path to follow in your quest to become a Big Data Engineer or a Big Data Architect, here is a learning hour guide to help you plan out your skilling journey. You can also get started with Big Data 101 with the help of the resources mentioned in the previous page.

LINUX FUNDAMENTALS - 6 hours including hands on

PROGRAMMING/ SCRIPTING LANGUAGE
Java, Scala or Python - 35 hours
Bash script - 6 hours

BIG DATA FUNDAMENTALS - 3 hours

BIG DATA PROCESSING FRAMEWORKS
Hadoop - 34 hours
Spark - 34 hours

DATA WAREHOUSING & ETL
Hive - 15 hours
Talend - 30 hours

DATA INGESTION TOOLS
Sqoop - 5 hours
Flume - 5 hours
Spark Streaming - 6 hours
Kafka Streaming - 6 hours

NOSQL DATABASE
HBase or Cassandra or MongoDB - 24 hours

MESSAGING SYSTEM
Kafka - 34 hours

BIG DATA CLOUD PLATFORM
Amazon EMR or Azure HDInsight - 6 hours

OTHER SERVICES/TOOLS - 10 hours
Zookeeper
Oozie
Ambari

CONCLUSION

Across the globe, organizations are betting big on Big Data as a game changer that has the potential to disrupt businesses. As the world becomes more and more reliant on data, Big Data Analytics has become crucial for organizations which wish to analyze it to improving business and decision making to gain an edge over competitors.
This has led to a huge demand for people with skills to manage, analyze and help organizations use Big Data effectively. For professionals, who are skilled in Big Data Analytics, there is an ocean of opportunities out there. In such a scenario, it's not very surprising that Big Data professionals are among the highest paid in the IT industry. Prominent economic sectors where Big Data is being applied include Retail, BFSI, Healthcare, Manufacturing, and IT Services. The industry is in dire need of Big Data Architects who can build an end-to-end big data solution for their organizations and Big Data Engineers to manage them. But, the skilled talent pool for Big Data Engineers and Architects is not yet enough to meet the growing demand for trained professionals and hereby lies the opportunity. Popular job titles being offered include Big Data Engineer, Big Data Solution Architect, Big Data Developer, Hadoop Developer / Admin etc.

The time is right to up-skill in Big Data and become an early mover in the sector. Become an early adopter now and get future job-ready, today!

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