# Introduction to Data Science Batch





#### **Reviews and Recommendations**



#### Satheesh Kumar - 1st

Serior Data Architect (# Collabers | Cloud | AWS | Ature | Data Analysi | SQL | Big Data | Streaming | Spark | Hive | NoSql | Kafka | Scala | Speaker | Blogger

April 17, 2020, Satheesh worked with Molamed Noordeen but they were at different companies

(B. All Linksoft mambers



Nooruseen is a god-gifted instructor. He has many years of experience in data science, knows a variety of creative methods, and ensures what you need to learn. His calming personality makes you feel completely comfortable, were when you are making mistokes. He is always encouraging and positive. He is the best data science instructor I have ever met from a dozen of instructors over the years with different perographies.

Sometimes, he pushes people to drive the path to achieve desire results. The way he handles shows the quality of managing people in unique and convinced way.

I have come across many profiles in data science industry and got a chance to interact with them globally.

Without doubt, Noorudien is one of the biggest South Indian profile with lots of latent, continuous

technology updating, also helping people personally during emergency period.

I can proudly say floor is the best in technology, humanity, and cores for a person to involve in subject. None of them have all these 3 qualities in the morket. He is man who jumped directly from heaven to corth.

If you want to improve your data science knowsdon and make quality decision to reach higher business results quickly, He is the right person to approach. You shall see the magic. He is not only focusing on technology to achieve the results but also drives how solution suits and help people in business.

I am sure and wish him, will reach greater heights in in future days.



#### rajguru ramalingam - 1st

#### Data Scientist

August 30, 2022, Mohamed Noordeen was senior to raiguru but didn't manage raiguru directly



"Noordeen - The Best Mentor\*

Noordeen is an expert in solving Business problems using Data Science skills. He is also one of the greatest Mentor/Trainer in his expertise area. I was mentored by him in Data science, using which I got multiple offers. His way of teaching involves easy understanding using exemples, layman language and best practices. Also like his thinking on continuous learning and updating himself with recent technologies.



#### Sridhar Pappu - 1st

President: uGCX Institute of Technology [Formerly INSGFE]; Professor at uGCXCT | Adjunct Faculty at Case Western Reserve University

May 18, 2017. Srigher was Micharted Noordiner's teacher

(S) Al Linkaulin mornisara



Mohamed Moordeen has all the right qualities to do well personally and professionally. His dedication to learning Data Science is amply visible from the fact that he traveled every weekend from Chennal to Bergaturu for a duration of meanly 6 months to do our rigerous certificate program. In a class of nearly 60 professionals, he did very well and even secured a scholarship that only a few in the class get. Even after petting the scholarship, he approached our Data Scientists to learn what matakes he had made.

In addition to grasping well the concepts of various Statistical, Machine Learning and Big Data techniques, the has displayed excellent coding skills as well. His approach to a problem is also very systematic and meticulous.

In addition, he is a very polite and soft-spoken person and will get well in any twen. I am sure Mohamed Noordeen will be an asset to any Data Science team, or any team, in general.



#### L S Kiran CH - 1st

Engineering Lead | Data Solution Architect | Big Data Engineer | Enterprise Data Integrations | DevOps-Cl/CD | Technology Consulting | Pelantir Foundry | Cloud - AWS

December 21, 2022, L.S.Kiran worked with Mohamed Noordeen but they were at different companies.

I got opportunity to learn Data Science from Noorudeen. He helped to me become advanced level in ML, DL, NLP and related ecosystem components. Starting with solving simple problem statement to complex one by doing the Hackathons in public forums like Analytics Vidhya and Kaggle and while see our rank in those portals, we got confidence which further encouraged me to do much more.



Tons of Thanks to Noorudeen for such dedication in educating us and make us a professionals in the field of Data science.

I can say that, it is almost impossible to get this type of learnings anywhere else due his unique nature of instructiveness while teaching along with doubt clearing then and there during session and I almost felt that we are actually in physical class room than virtual five session.

Truly speaking. When we have great knowledge, there are many way to earn money, but Noorudeen chosen the field of education to enhance many people lives with career growth. This motive really great and very kind gesture towards the society we are in. Thanks a slot and keep doing.



\* \* \* \* \* 3 months ago

I was referred to Inceptez by one of my friends and was a little skeptical to join because I had only knowledge of SQL and Informatica support activities.

I had not worked as a developer in my career.

But after joining the AVML course in Inceptez, I was handed over to two of the best mentors( Imran and Noar)

Imran and Noor taught us all the python concepts, stats and ML algorithms .DL, NLP related projects. They never were in a hurry to complete a specific topic and move ahead.

They had their roadmap and perfectly followed that without any delay.

we got confidence which further encouraged me to do much more.

All doubts were cleared before moving on to the next session.

Assignments and coding problems were given on regular basis to enhance our coding skills and to increase understanding of the ML concepts in depth

Whatever contents were promised before joining the course were completed and even some advanced concepts which are not in the curriculum were taught to us.

@Noor inceptez You have been a great mentor and tutor for me personally , really motivated to get a move on into this exciting domain of datasclarace and I really hope god shower you with good health and more success. Thank you for believing in us.

lskiranch3 ch 1 review

\*\*\*\* 3 months ago

Data Science course is my 3rd Course at Inceptez, I learnt Big data and Dev Ops here which uplifted my career 5x faster than usual. With Data Science knowledge addition looking forward to step-up up my career further level. Last year, I have feeling that I am out of track with the respect to Al and ML area before learning. But Noordeen made me from novice to advanced level in ML, DL, NLP and related ecosystem components. Starting with solving simple problem statement to complex one by doing the

Hackathons in public forums like Analytics Vidhya and Kaggle and while see our rank in those portals,

Tons of Thanks to Incepted and Noordeen for such dedication in educating us and make us a professional engineers in the field of Data science.

I can say that, It is almost impossible to get this type of course anywhere else due it's unique features like interactive Live session from industry export like Noor along with doubt Noordeen then and there during class and we almost felt that we are actually in physical class room than virtual live session.

Truly speaking, when we have great knowledge, there are many way to earn money, but Inceptez and



Kavitha Seenivasan

\*\*\* a year ago

Positive: Professionalism, Quality, Value

Good place to take Data science. Noordeen sit is the good brainer and mentor, who teaches all basic to advance concepts in Machine learning, deep learning and NLP. Calmly clears all our doubts with no hasitation and repeat the explanation in different angle for the hard to understand topics. Gave us motivation and support for all the time. Thanks to Basid for support and encouragement.



#### Rajkumar Rajendran

\*\*\*\* a year ago Positive: Communication, Professionalism, Quality, Value

Sest place to learn Data Science is incepted Technologies

Noor is a great teacher ,mentor & motivator, he has very depth knowledge in ML, DL & RLP and the way he makes us understand the concepts are awasome.

Thanks to Basith for providing the necessary support. I would recommend incepted to all those who aspire to learn Data Science.



#### mohamed suhaib

\*\*\*\* a year ago

Positive: Communication, Professionalism, Quality, Value

I have take up Data Science course in Inceptez, my instructor is Noorudeen. He has lot of experience in data science platforms like Machine Learning, Deep Learning, NLP, Python and statistics. He taught us almost all the algorithms and preprocessing and feature engineering techniques using in ML and DL and NLP using in today's market and provided lot of practical and coding examples using real time Kaggle dataset and helped us to understanding the algorithms in better and easy way.



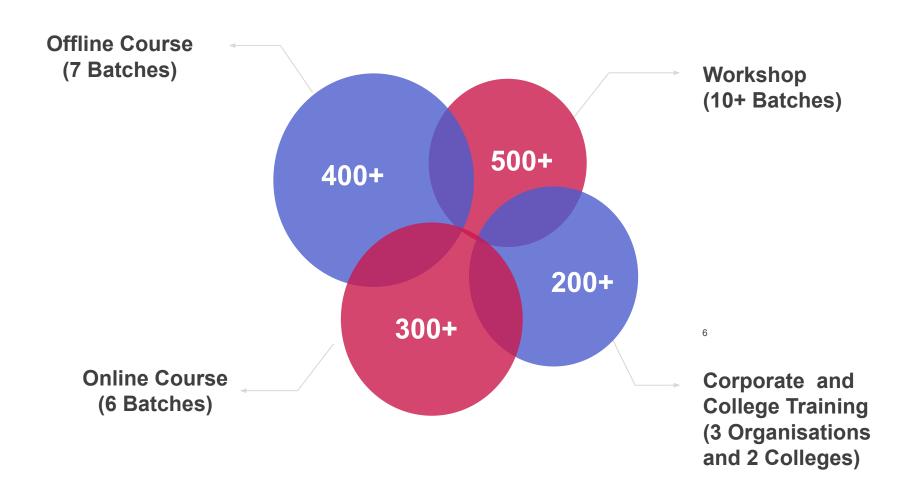
#### Divya Narayana

t review

\*\*\*\* 3 months soo

If a great place to learn the Data Science course here. I came to know about incepted through my brother who completed the Big Data course successfully and now he's a successful Data Engineer in a reputed company. Howe learning here. They are explaining every concept in detail. I highly recommend aspirants to do the courses here. Thanks to Noor

#### Mentored above 2000+ Data Science Aspirants

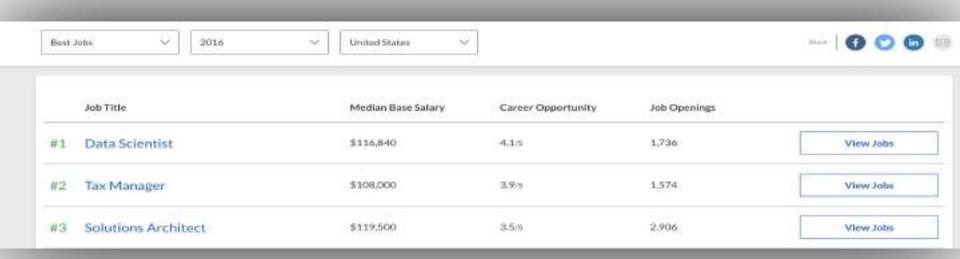




# glassdoor

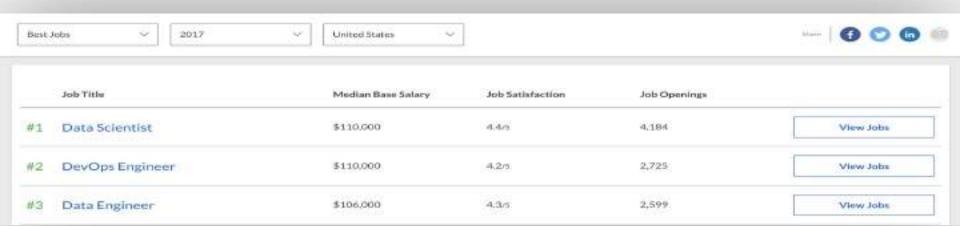


### 25 Best Jobs in America (2016)



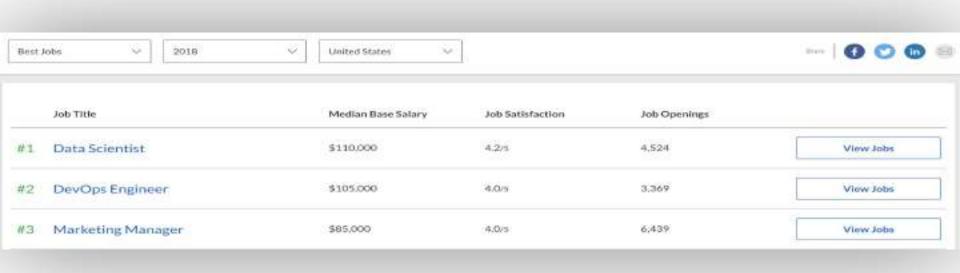


### 25 Best Jobs in America (2017)





# 25 Best Jobs in America (2018)





# 25 Best Jobs in America (2019)

Best.	obs 2019	∨ United States ∨	J		I   O O O 0
	Job Title	Median Base Salary	Job Satisfaction	Job Openings	
#1	Data Scientist	\$108,000	4.3/5	6,510	View Jobs
#2	Nursing Manager	\$83,000	4.9	13,931	View Jobs
#3	Marketing Manager	\$82,000	4.2/5	7,395	View Jobs



#### Top 20 job roles in increasing and decreasing demand across industries

#### Increasing demand

#### Data Analysis and Scientists All and Machine Learning Specialists Big Data:Specialists Digital Marketing and Strategy Specialists Process Automation Specialists Business Development Professionals Digital Transformation Specialists Information Security Analysts. Software and Applications Developers Internet of Things Specialists Project Managers 11 Business Services and Administration Managers. 12. Database and Network Professionals. 13 Robotics Engineers Strategic Advisors 15 Management and Organization Analysts 16 FinTech Engineers 18 Mechanics and Machinery Repairers Organizational Development Specialists 19. 20 Risk Management Specialists

#### Decreasing demand

1	Data Entry Clerks
2	Administrative and Executive Secretaries
3	Accounting, Bookkeeping and Payroll Clerks
4	Accountants and Auditors
5	Assembly and Fectory Workers
6	Business Services and Administration Managers
7	Client Information and Customer Service Workers
8	General and Operations Managers
9	Mechanics and Machinery Repairers
10	Material-Recording and Stock-Keeping Clerks
11	Financial Analysts
12	Postal Service Clerks
13	Sales Rep., Wholesale and Manut., Tech. and Sci. Products
14	Relationship Managers
15	Bank Tellers and Related Clerks
16	Disor-To-Door-Seles, News and Street Vendors
17	Electronics and Telecoms Installers and Repairers
10	Human Resources Specialists
10	Training and Development Specialists
20	Construction Laborers

#### Source

Future of Jobs Survey 2020, World Economic Forum.



#### Data and Al jobs of tomorrow, top roles and typical skills in past transitions

#### A. Opportunities within professional cluster

Rank	Scale of opportunity	Job
1	Mass	Artificial Intelligence Specialist
2	Mass	Data Scientist
3	Moon	Data Engineer
4	None	Big Data Developer
6	Mass	Data Analyst
- 6	Masa	Analytics Specialist
7	Niche	Data Consultant
8	Nichii	Insights Analyst
9	Niche	Business Intelligence Developer
10	Mass :	Analytics Consultant

#### Source

Linkedh Economic Graph.

#### Note

The gap measure has been capped at 1.00.

#### B. Typical skills gaps across successful job transitions

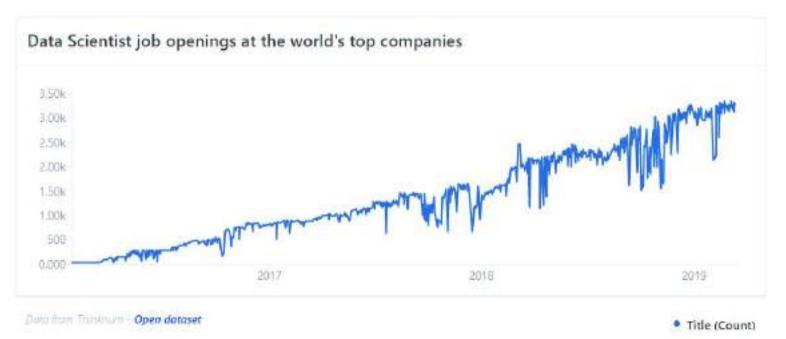
Rank	Skill	Skill gap of workers transitioning into this job cluster (0 is full gap, 1 is no gap)	
1	Date Science	0.19	
2	Date Storage Technologies	0.41	
3	Artificial Intelligence	0.10	
4	Development Tools	0.73	
6	Computer Networking	0.78	
6	Management Consulting	0.85	
7	Scientific Computing	0.41	
8	Product Marketing	1,00	
9	Natural Language Processing	0.11	
10	Digital Marketing	1.00	
11	Advertising	1.00	
12	Cloud Computing	0.27	
13	Customer Experience	1.00	
14	Signal Processing	0.15	
15	Information Management	0.93	
16	Software Development Life Cycle (SOLC)	1.00	

https://www.glassdoor.com/List/Best-Jobs-in-America-LST\_KQ0,20.htm

https://www.weforum.org/reports/the-future-of-jobs-report-2020



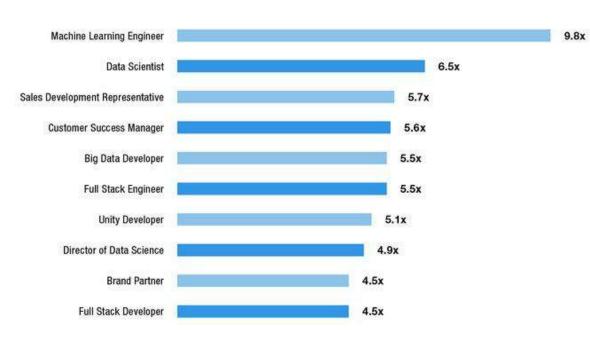
# High Demand of Data Scientist





# Low Supply of Data Scientist

- The world needs 28% more data scientists worldwide by
   2020 to meet growing demand
- 2. There's a shortage of **151,717** data scientists in the U.S. alone.
- 59% of data science job demand is in Finance, Professional Services, and IT
- 4. The highest demand for data skills is in the area of **machine** learning.





# WHY THE DEMAND IS HIGH?



# DATA SCIENCE DOMAINS

FINANCE Asset pricing, trading strategies and more	HEALTHCARE Epidemiology, Insurance, Image recognition	PHARMACEUTICALS Patient Journey, Treatment Pathways
GOVERNMENT Climate Change, Public Policy, Security	MANUFACTURING Supply Chain, Equipment maintenance and others	RETAIL Pricing, Discounts, Market Basket Analysis
OIL & GAS Drilling, Sensors, Equipment Maintenance	TRANSPORTATION Airline Promotions, Passenger promotions	UTILITIES Smart Meter Grids, Power consumption
WEB INDUSTRY Clickthrough Ads, Marketing	INTERNET SECURITY Log monitoring, Alerts, Detecting intrusions	SPACE & SCIENCE High Energy Physics, R&D and much more

- 1. Increasing data complexity
- 2. Business optimization and innovation
- 3. Industry-wide adoption



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0around%206500.

https://data-flair.training/blogs/dat a-science-job-trends/



### **My Theory**

#### ERA 1







#### ERA 2







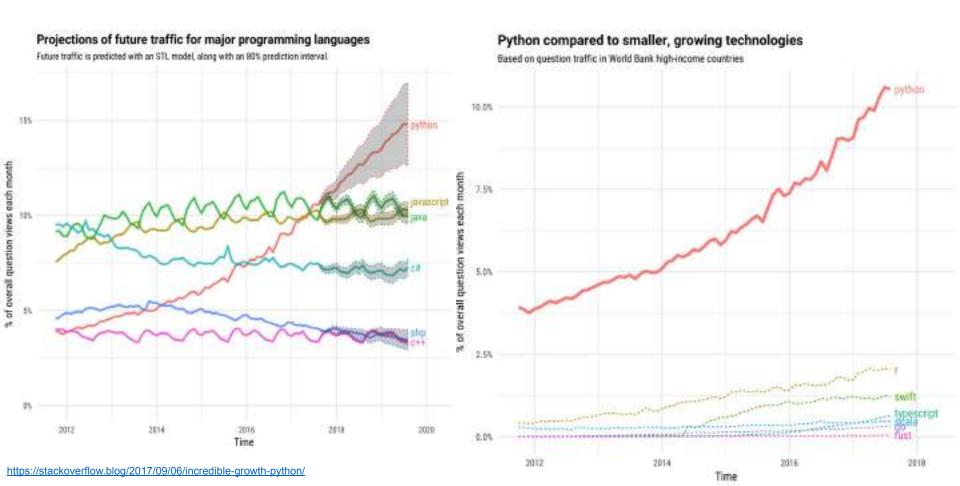
#### ERA3

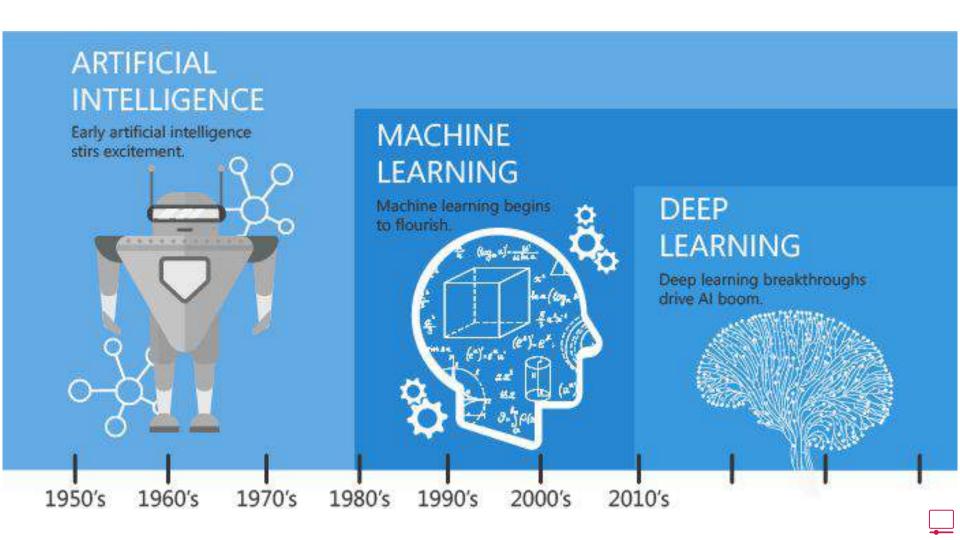






### Python's Huge Demand and Popularity

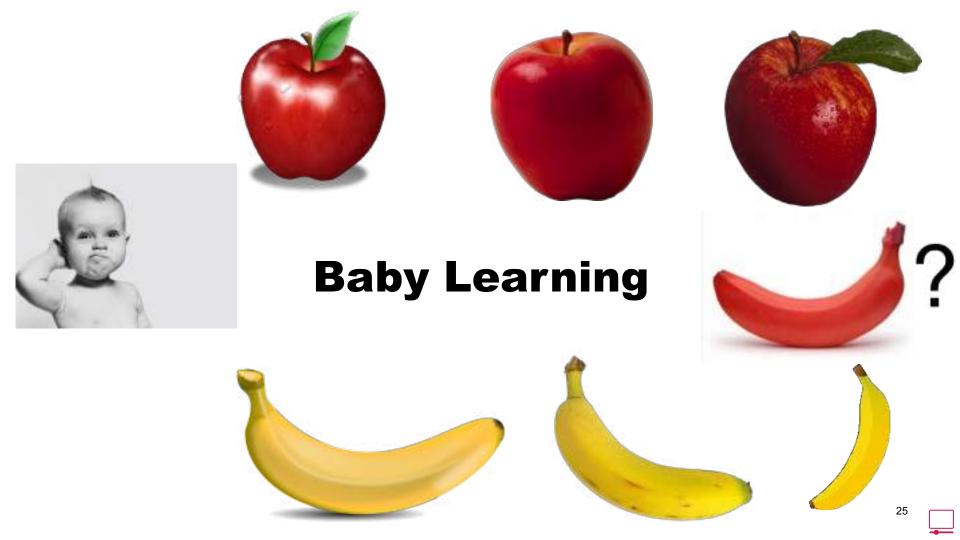


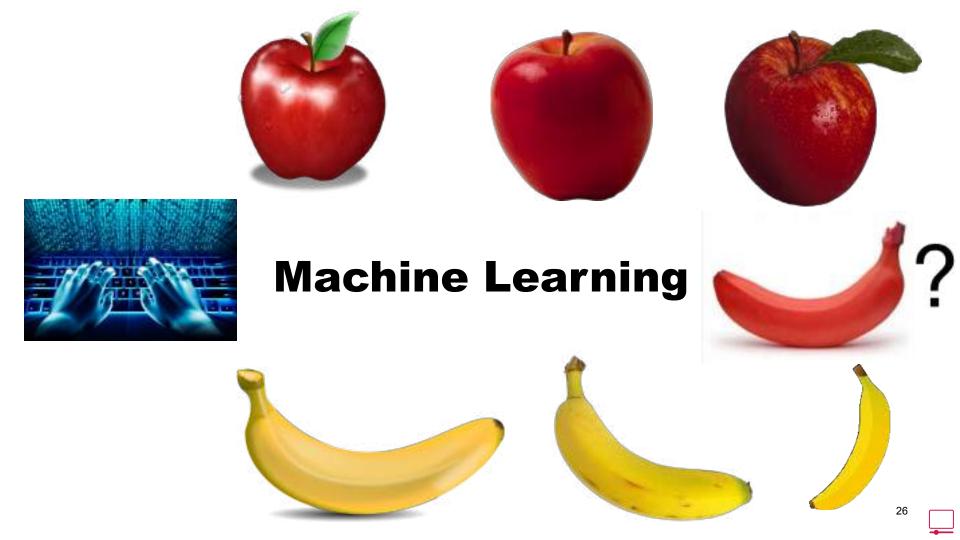


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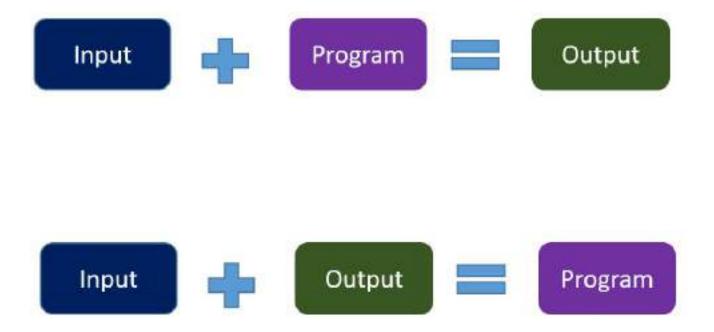








## **Traditional Programing Vs Machine Learning**





## AI and Jobs

#### Which Jobs are at Risk and Which Industries are Impacted?

- Jobs at Risk: Routine and repetitive tasks, such as data entry and assembly line work
  - Transportation, manufacturing, and retail are among the most impacted industries
- Jobs in Demand: High-skill and non-routine tasks, such as data analysis and creative work
  - Healthcare, education, and technology are among the most in-demand industries



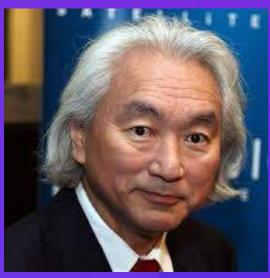
Photo by **Unsplash** 

# Future Jobs - Michio Kaku - Physicist

- Those of Artificial intelligence can't do
- Pattern recognition and common sense are big
- problem of Al
- Repetitive jobs will be wiped off

Jobs involved in intellectual capitalism will shine like

- Leadership
- Creativity
- Analysis
- Imagination
- Telling joke
- Writing a story, script



# Reskilling

#### Importance of Reskilling and Upskilling Employees

- Reskilling: Learning new skills to adapt to new job roles and technologies
  - Online courses, apprenticeships, and on-the-job training can all be effective reskilling methods
- Upskilling: Improving existing skills to stay up-to-date with new technologies and industry trends
  - Continuous learning and professional development are key to upskilling



Photo by **Unsplash** 

## Soft Skills

#### Creativity, Emotional Intelligence, and Communication

- Creativity: The ability to think outside the box and come up with innovative solutions
  - Important for developing new products and services, and improving existing ones
- Emotional Intelligence: The ability to understand and manage one's own emotions, and empathize with others
  - Important for building strong relationships with colleagues and clients
- Communication: The ability to convey ideas and information clearly and effectively
  - Important for collaborating with others and presenting ideas to stakeholders



Photo by **Unsplash** 

# **Industry Case Studies**

#### How Various Industries Have Adapted to AI Technology

- Healthcare: Al technology is being used to improve patient outcomes and reduce costs, through applications such as medical imaging and predictive analytics
- Manufacturing: Al technology is being used to improve efficiency and productivity, through applications such as predictive maintenance and quality control
- Retail: Al technology is being used to improve customer experience and increase sales, through applications such as personalized recommendations and chatbots



Photo by **Unsplash** 

Exhibit 1: Imitating Traditional Development Paths Is Impossible for Emerging Economies Nigeria would need over 700,000 additional doctors to reach OECD levels by 2030

Sources: World Bank, WHO, Africa Health Worldorce Observatory, BMI, IFC, BCG.



ECONOMI

# Steps to Stay Ahead

#### Networking, Continuous Learning, and Adaptability

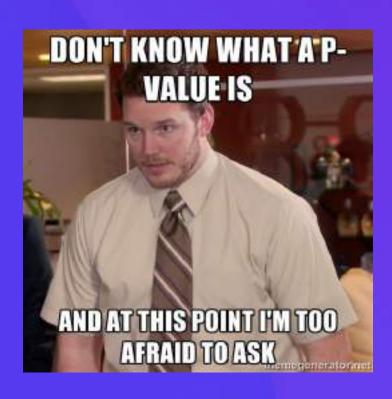
- Networking: Building relationships with colleagues, mentors, and industry experts can help individuals stay informed about new job opportunities and industry trends
- Continuous Learning: Investing in education and training programs can help individuals develop new skills and stay up-to-date with new technologies and industry trends
- Adaptability: Being open to new job roles and technologies, and willing to learn and adapt, can help individuals stay ahead in the job market with Al technology



Photo by **Unsplash** 

# How to tame it?

# Revise Statistics and Probability





# Learn algorithm how it works rather concentrating on output







# Learn and practice a programming language



# Big data and Data science are happily married



# Practice all algorithm with each use case



# Make use of Kaggle and Analytics vidhya





# Contribute your work to Opensource







# Write a blog





### References

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# Conclusion

Key Takeaways and Future of AI and the Job Market