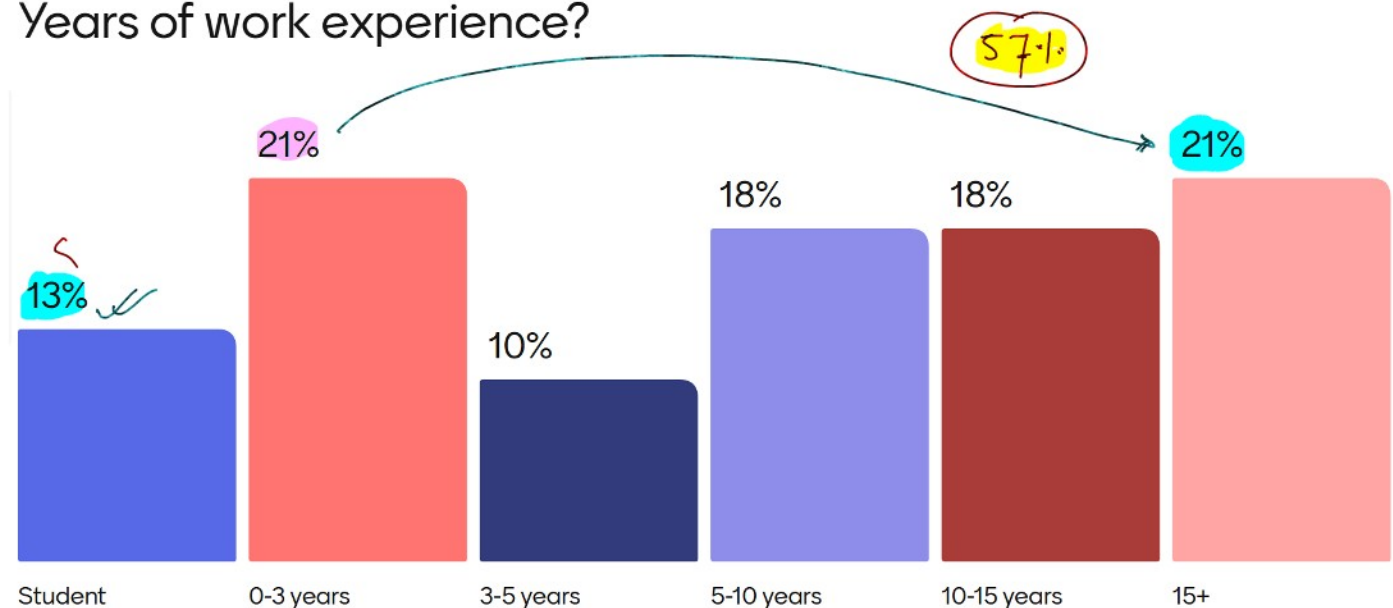


- upskilling
- career transition

↓

get a job




Who am I?


07 September 2025 09:48


AKASH PUSHKAR CHARAN aka APC


Quick witted | Tech-Savvy | Observer




- IIT Kanpur Alumnus
- Working as Principal Data Scientist with **Accenture Strategy & Consulting**

 **9+** of Industry experience of delivering **multiple data science projects** across industries

 **15+** years of experience training & mentoring

 Taught **30000+** GATE Students

 **7000+** career transitions into Data Science roles

"It's not who I am underneath but what I do that defines me" →

2008 - IIT-JEE Maths
↓
2012 - 2016 → GATE (EC/EE/IN)
↓
2016 - till date AI / ML / DS
x 2025 → 17

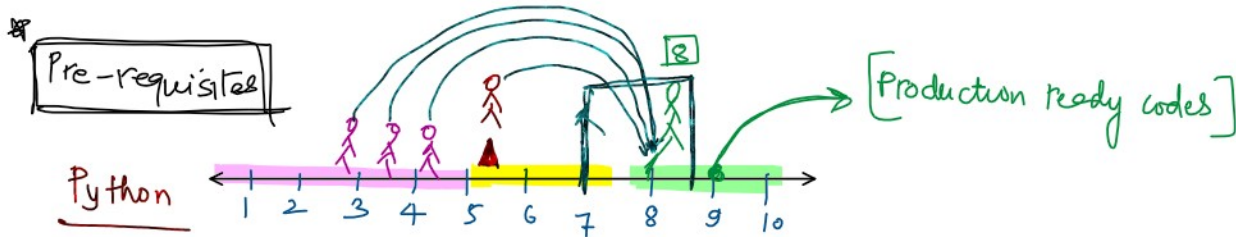
<https://www.linkedin.com/in/akash-pushkar-04642925/>

[How to Become a Data Scientist in 2024 | Data Science Skills, Job Description, Salary | Intellipaath](#)



Setting up guidelines & expectations

07 September 2025 10:28



- Basics -

- OOPs -

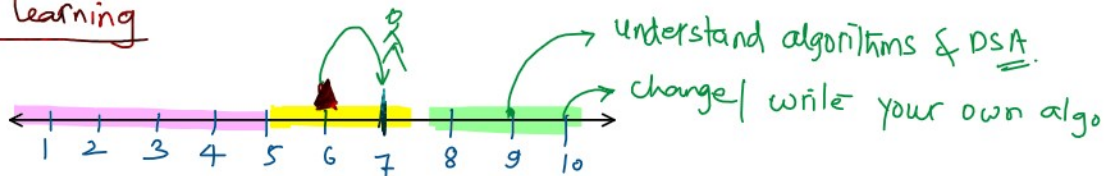
- NumPy, pandas, viz..

Daily \rightarrow [1hr. of consistent coding]

- [share some resources / materials]

- Apc needs to share.

Machine Learning



① Intuition behind ML algorithm

② Mathematics behind ML algo.

- calculus

- Linear Algebra

- Probability & Random Variable

- statistics

③ Hands on exercises | coding

"Industrial / real projects"

\rightarrow "case-studies"

\rightarrow Problems from kaggle / any public repo.

\rightarrow summarize \rightarrow pros
 \rightarrow cons

(gtg) : "good to go"

Pre-requisites from prior sessions

① Bias and variance

— overfitting and underfitting

② Gradient Descent Algorithms (GDAs)

- Batch
- Mini-Batch
- Stochastic

* Partially done only for some folks.

↓

Needs to be done — APC.

③ User-defined functions (UDFs) → to mimic any algorithm

④ OOPs Principles

Promise: we'll write our own Neural Network Model by hands

— Excel worksheet

↓

— Python

— OOPs	}	— Zip()	}	— matplotlib
— NumPy		— apply()		— seaborn
— Pandas				— plotly (resources materials)
— visualization				

Certain Guidelines

① Respect time and money.

② [DO NOT MISS A SINGLE LIVE SESSION.]

Wedding video: A) Once

✓ B) twice

C) thrice

D) more than 4 times

③ Dedicated Doubt Slots (DDS) → after the break (10-15mins)
→ after the session ends (10-15mins) } Talk to me

④ Industry based training

- real world examples
- drop startup ideas
- detailed discussions.

Course Structure

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[8-10 weeks] : Tentative

Module #1 Introduction to deep learning (DL)

- Difference b/w ML, DL, AI, GenAI, LLM, Agentic AI, DS, RAG, NLP
- Use-cases of DL in the industry
- (domain wise) \leftrightarrow examples
 - \rightarrow supply chain
 - \rightarrow Healthcare
 - \rightarrow BFSI etc.

Module #2 Introduction to Artificial Neural Networks (ANNs)

- connecting the dots between the human nervous system and neural networks } Intuition
- gradient descent algorithms (GDAs)
 - Batch
 - Mini-Batch
 - Stochastic } writing our own codes for GDAs leveraging maths.
- Single Layer Perceptron (SLP)
- Multiple Layer Perceptron (MLP)
- Parameters in ANNs
 - weights
 - biases
- Activation Functions (AFs)
 - relu, sigmoid, softmax, tanh etc.

Building a proper ANN from scratch.

- using IRIS dataset

Module #③ Neural Network Framework

- Introduction to TensorFlow
 - Introduction to Keras
- } (sequential modelling approach)

MNIST database: handwritten digits recognition hands on.

Module #④ Convolutional Neural Networks (CNNs)

Module #⑤ Natural Language Processing (NLP)

Module #⑥ Recurrent Neural Networks (RNNs)

Module #⑦ Long short term model (LSTM)

- Miscellaneous topics