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PGP in Artificial Intelligence

6 Months | Online Instructor Led

Contents

28 Lakhs

Median Salary - AI Engineer

Top 2

trending careers in 2022 (#2 Artificial Intelligence)

1 Million

Job Opportunities in India

OUR VISION

“

To make **world class education** accessible for professionals.

- Manvender Singh (Manav),
Founder & CEO, Accredian
MBA - Indian School of Business

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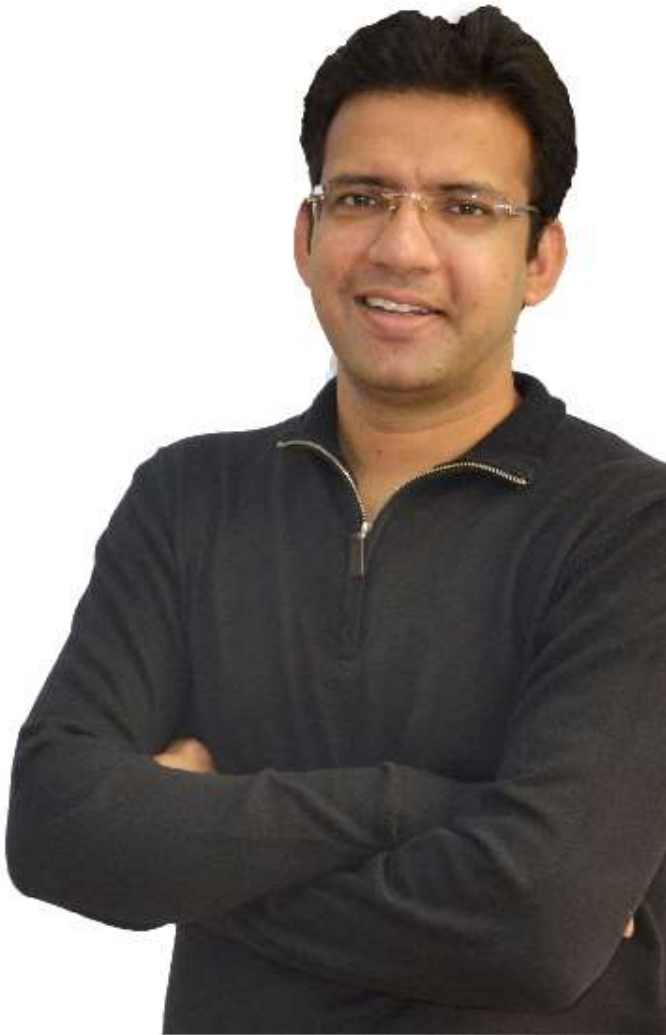
ISB



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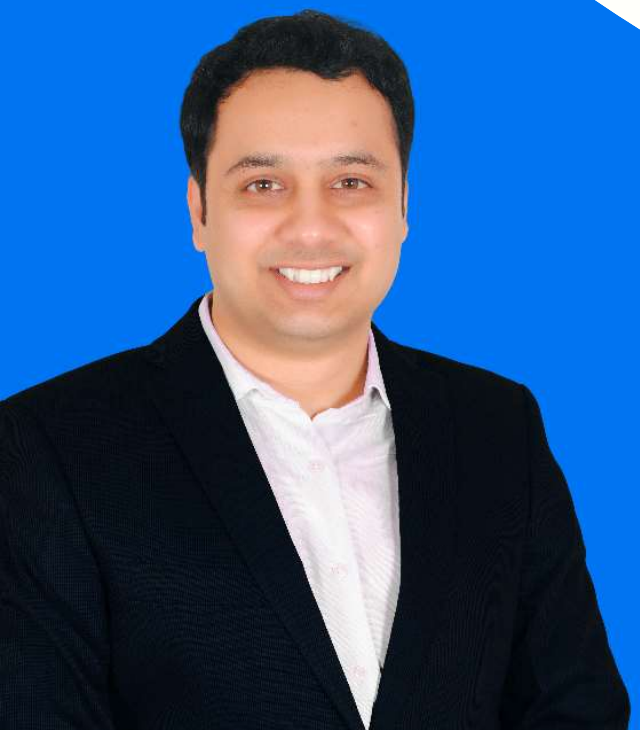
Why PGP in Artificial Intelligence?

MASTER
Artificial Intelligence, CV & NLP

Recommended
for aspiring Data Scientists & AI Leaders

10000+
Alumni Network

50%
Scholarships



Suchit Majumdar
Chief Data Scientist, Accredian
MBA, Indian School of Business

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Why Data Science & AI?

30%

Businesses increasingly prefer **Data-Driven** decision-making. Data Analytics market is growing at CAGR of 30%

Forbes

79%

79% of financial institutions believe that Data Science is essential for gaining a **competitive edge**.

Deloitte.

60%

60% of companies reported positive **ROI** from Data Science initiatives within first year of implementation.

pwc

$900B

Worldwide **AI Market** will grow by a CAGR of 18.9% to reach $900B mark by 2026

IDC

Trending AI Roles in 2023

- Chief Data Officer
- Director of AI
- Lead Data Scientist
- AI Engineer
- AI Consultant
- Computer Vision Specialist
- Senior Data Scientist
- Data Scientist
- Compter Vision Engineer
- NLP Engineer
- Senior AI Engineer
- AI Leader

Program Highlights

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LIVE
Instructor led Training

6 Months
Weekend Classes

40+
Projects & Guides

Placements
100% Career Assistance

Master 15+ AI Tools...

python
NLTK
OpenAI DALL·E 2
Vertex AI
ChatGPT
Google Cloud Functions
scikit learn
SQL
Power BI
TensorFlow
Keras
OpenCV
pillow
GENSIM topic modelling for humans
Flask web development, one drop at a time

Program Syllabus

Term 1: Basics of AI, Tensorflow & Keras

Module 1 - Introduction to Artificial Intelligence

- What is Artificial Intelligence?
- Growth of AI
- Reasons Behind the Boom of AI
- Applications of AI
- Future Possibilities

Module 2 - Introduction to Deep Learning Module

- Basics of Neural Networks
- How Do Neural Networks Work?
- How Do Deep Neural Networks Learn?
- Matrices & Operations in a Nutshell
- Maths Behind Deep Neural Networks

Module 3 - Components Affecting Deep Learning Models Module

- Using Different Hyperparameters
- Learn What Components Affect DL Models
- Learn How Activation Functions Trigger Neurons
- Review Different Activation Functions
- Speed of Learning - Learning Rate for Machines
- Limitations of Gradient Descent

Module 4 - Deep Learning Model Practical with Tensorflow & Keras

- Practical Implementation of the Components Affecting Deep Learning Models
- Learning about Tensorflow and Keras.
- Tuning Using Different Optimizers - Nestrove, Adagrad, RMSprop, Adam
- Understanding Early Stopping, Regularization, Dropout, Batch Normalization

THE Coca-Cola COMPANY

Foretelling Ad Outcomes
Predicting whether an ad will be profitable or not

Microsoft

Threatmeter: Guaging DEFCON levels
Predicting a country's DEFCON level based on data provided

& many more

Program Syllabus Cont.

Term 2: Computer Vision

Module 5 - Intro to Convolutional Neural Networks

- Understand Convolution
- Techniques Applied in a CNN - Pooling, Padding
- Components of a Convolutional Neural Network (CNN)
- Building a CNN in Keras. Overcome Local Minima Problem Using Momentum

Module 6 - Decoding Image Components

- Popularly Used Techniques for Image Processing
- Collecting Image data
- Resizing and Reducing Image Dimensions
- Components of an Image

Module 7 - Identifying MNIST Using CNN

- Identifying Numbers Using CNN
- Understanding MNIST dataset.
- Building CNN model using MNIST data.
- Apply a Few Common Architectures to Identify Better

Module 8 - Preprocessing Image Data to Apply CNN

- Use Image Augmentation Techniques on Different Datasets
- Understanding Image Processing Techniques
- Experiment with Scaling, Transformations, etc. to get different outputs.
- Building CNN models using different Image processing Techniques.

Automated Disaster Tweet Detection
Classify Disaster Tweets using Text Sentiment Analysis

verizon

Real-time SMS Spam Classification
Predict whether a message received by the user is Spam or Not

& many more

Program Syllabus Cont.

Term 3: Natural Language Processing

Module 9 - Introduction to NLP & Word Vectors

- Introduction to NLP
- Bag of Words Model
- Converting Text to Numbers
- Using Word2vec to Convert Text to Numbers
- Using Pre-built Word2vec Embeddings

Module 10 - Decoding Textual Data

- Implement Text to Number Operations
- Build Word2vec Using Regular NLTK Package
- Identify Word to Number Relationship
- Understanding different text processing techniques.

Module 11 - NLP using Recurrent Neural Networks (RNN)

- How Can We Make Neural Networks Remember the Past?
- Introduction to RNN
- Introduction to LSTM
- LSTM & Gated Recurrent Unit (GRU) Theory

Module 12 - NLP using Memory Alterations

- Using Long Short-term Memory (LSTM) in Place of RNN
- Using RNN for Classification in Keras.
- Using LSTM for Classification in Keras
- Using GRU for Classification in Keras.

MONSANTO

Advanced Image Analysis for Fruits 360
Predict What Fruit a particular Image Contains.

MOLINA HEALTHCARE

Instant Gender Classification from Images
Classify Gender from an Image.

& many more

Program Syllabus Cont.

Term 4: Specialization in CV

Module 13 - Transfer Learning

- Can Machines Learn from each other?
- Understanding Transfer Learning
- Image Classification using Transfer Learning
- Train a Model using Imagenet Data
- Classify Objects Using CNN Models

Module 14 - Object Detection Using CNN Based Algorithms

- What is Required to Detect Multiple Objects in an Image?
- Using Region-based CNN (R-CNN) for Object Detection
- Improving R-CNN Using Fast R-CNN Network
- You Only Look Once (yolo) for Object Detection

Module 15 - Instance Segmentation in Images

- How to Identify Objects at the Pixel Level?
- Understanding Instance Segmentation
- Understanding RNN Model
- Mask R-CNN Model for Instance Segmentation

Module 16 - Generative AI

- Introduction to Generative Models in Computer Vision
- Image Synthesis with Generative Adversarial Networks (GANs)
- Image-to-image Translation
- Variational Autoencoders (vaes) for Image Generation & Manipulation
- Usecases : DALL-E

Term 5: Specialization in NLP

Module 17 - Teach Machines to Generate New Textual Data

- Understanding Language Modeling
- Generating New Text Data
- Building Character Level RNN (char-RNN)
- Building Word Level RNN

Module 18 - Language Translation using Seq2seq Models

- Understanding the Requirements of Machine Translation
- Introduction to Sequence to Sequence (Seq2Seq) Model
- Understanding the advantage of Seq2Seq Model
- Building Seq2seq Model in Keras

Program Syllabus Cont.

Module 19 - Techniques to Enhance Seq2seq Models (Attention Mechanism)

- What is Attention Mechanism
- Breaking down the Attention Mechanism
- Understand the working behind Attension Mechanism
- Applying Attention to Seq2seq Models

Module 20 - Advanced NLP Using BERT

- Introduction to BERT
- Understanding BERT Architecture
- BERT Embeddings
- Case Study: Create Question Answer Model Using BERT

Module 21 - Understanding LLM & their Usecases

- Introduction to Large Language Models
- GPT-3.5 Architecture & Capabilities
- Working with Large Language Models
- Methods for Evaluating the Performance of Large Language Models
- Usecase: ChatGPT

Real World Business Use Cases

AI Capstone Project

In this ever evolving world, solving complex problems get easier using AI. In this capstone project you will be an AI expert who is helping a hypothetical company resolve some major challenges it faces by using AI. Get a chance to work with a team of AI specialists and a simulated environment to help you relate to real world challenges companies face regularly.

Program Syllabus Cont.

Term 6: Building AI Solution

Module 22 - Intro to Cloud Computing

- What is Cloud Computing?
- Features of Cloud Computing
- Essential Characteristics of Cloud Computing
- Key Considerations for Cloud Computing
- Different Cloud Architecture Design Principles

Module 23 - AI on Google AI Platform

- Using GCP for Google AI Platform
- Introduction to Vertex AI
- Setting up Vertex AI
- Case Study: Creating Automachine Learning Model Using Vertex AI

Module 24 - Building AI Pipeline

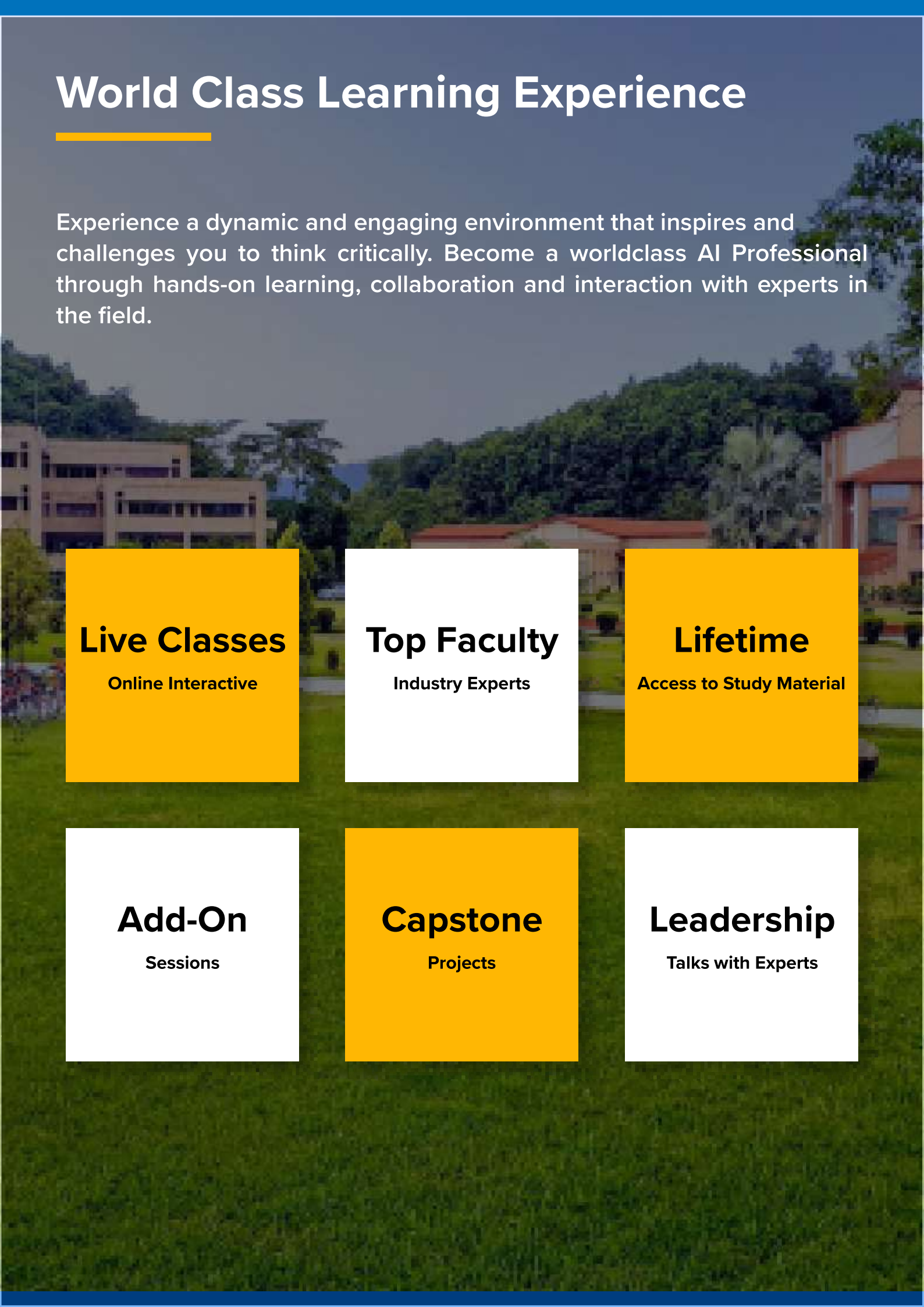
- Using Vertex AI for Creating AI Pipeline
- Building Pipeline in Cloud Platform
- Usinf Vertex AI for Creating AI Pipeline
- Case Study: Creating End to End Model Pipeline

Module 25 - Building AI Solution

- Google Cloud Function
- Setting up Google Cloud Function
- Automate AI Pipeline Using Cloud Function
- Testing the AI Pipeline.

World Class Learning Experience

Experience a dynamic and engaging environment that inspires and challenges you to think critically. Become a worldclass AI Professional through hands-on learning, collaboration and interaction with experts in the field.



Live Classes
Online Interactive

Top Faculty
Industry Experts

Lifetime
Access to Study Material

Add-On
Sessions

Capstone
Projects

Leadership
Talks with Experts

Add-Ons

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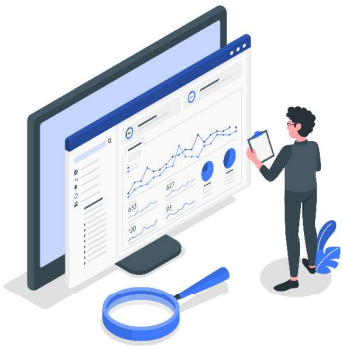
Profile Enhancement Learning Modules

Power BI
Learning the most
emerging BI tool of 2023

SQL
Become an
SQL Master



Industry Mentorship
live sessions with Top Data Scientists from

Microsoft amazon Google Meta

Key Statistics

6 months
Comprehensive Learning

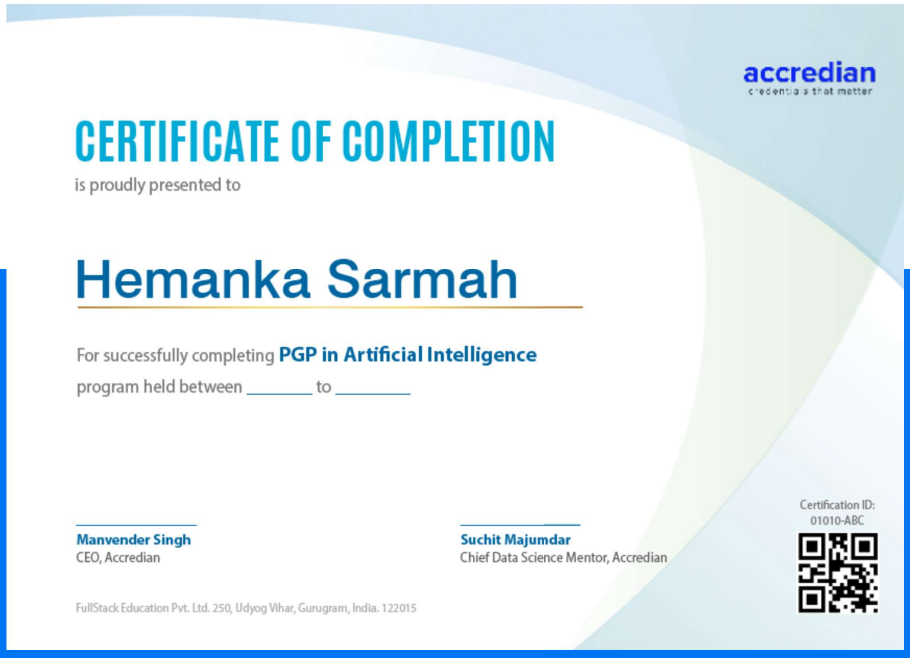
90+
Hours of Live Classes

6
Terms

20+
Tools & Frameworks

8
Career Assistance Sessions

Get Certified from India's Premier Institution



Learn from India's Best AI Leaders

Sr. Faculty

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Sr. Faculty

accredian

Sr. Faculty

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Team Lead,
Data Analytics

Paytm

Data Science
Consultant

Walmart

Lead Data Scientist

Jio

Data & Analytics
Engagement Manager

Shell

Associate Director -
Data Science

NOVARTIS

Why Accredian

"Accredian proved to be the right platform to bridge all gaps and helped me achieve my main goal, which was to work as a Data Scientist."

- Rahul Sinha, Data Analytics Manager, METRO

Career Support with 8 Powerful Sessions

Upon enrolling in the program, you will have access to Accredian Career Support module. This module includes comprehensive career development sessions aimed at enhancing your job profile and helping you excel in your interviews.

RESUME PREP

We'll help you build a sharp DS Resume.

1-ON-1 CAREER COUNSELLING

Get a dedicated career coach for you!

SIMULATED MOCK INTERVIEWS

Participate in mock interviews and be prepared.

DS INTERVIEW RESOURCES

Get access to 2023 Data Science interview resources.

The Career Services provided by Accredian are intended to empower you to actively manage your career and are not a promise of employment.

Success Stories

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I would like to thank Accredian team for helping me develop discipline needed to become a Data Scientist.

- Anirudh Acharya, Data Scientist, DXC Technology

I would like to thank Accredian for wonderful support and beautiful journey. Learnt a lot and intend to use the same in my work.

- Sohamjeet Ganguly, Data Scientist, TCS

Accredian helps you through real-world applications of Data Science in your actual business or work.

- Foram Salva, Data Scientist, MYGLAMM

I found Accredain as the best when compared to other online programs. Accredian's curriculum is way ahead of other institutes.

- Siboli Mukherjee, Data Analyst, Vodafone Idea

Read more on blog.accredian.com

Program Snapshot

START DATE	Check website for latest batch start dates
DURATION	6 Months
PROGRAM TERMS	6 Terms
WEEKLY SCHEDULE	Online classes on weekends Self practice/assignments on weekdays
PROGRAM FEE	₹ 1,20,000 + GST Scholarships upto 50% available

Talk to your Learning Advisor

+91 70631 19228

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