



**Post Graduate Certificate in
Data Science & Analytics
with Generative AI**

6 Months | Online/Offline Program

Welcome Message

Welcome to Datacrew, your compass in the world of IT excellence! We are thrilled to have you join our vibrant community of passionate learners and industry enthusiasts. At DataCrew, we don't just offer courses; we offer opportunities. Opportunities to expand your knowledge, transform your skills, and shape your career in the ever-evolving landscape of technology. Our mission is to empower you with the expertise, confidence, and capabilities you need to thrive in the world of Information Technology.

At Datacrew, we take immense pride in being the undisputed leader in the IT Software Training sector. In a remarkably short time, we have carved a niche for ourselves, offering unparalleled opportunities for individuals to shape their futures. Our journey is driven by a underpin and motivation. We are on a relentless mission to make India a hub for Artificial Intelligence and analytics. We strive to shape learners into experts in diverse domains, including Analytics, Cyber Security, Banking, Insurance, Retail, Health Care, and Manufacturing.



DATA CREW EDUCATION INDIA PVT LTD

INDIA'S LEADING PROFESSIONAL ED-TECH COMPANY



20+

Top Ranked
Programs



1000+

Learners



450+

Hiring Partners



10k +

Hours of Learning
Delivered



25+

Industry Experts



12.5LPA

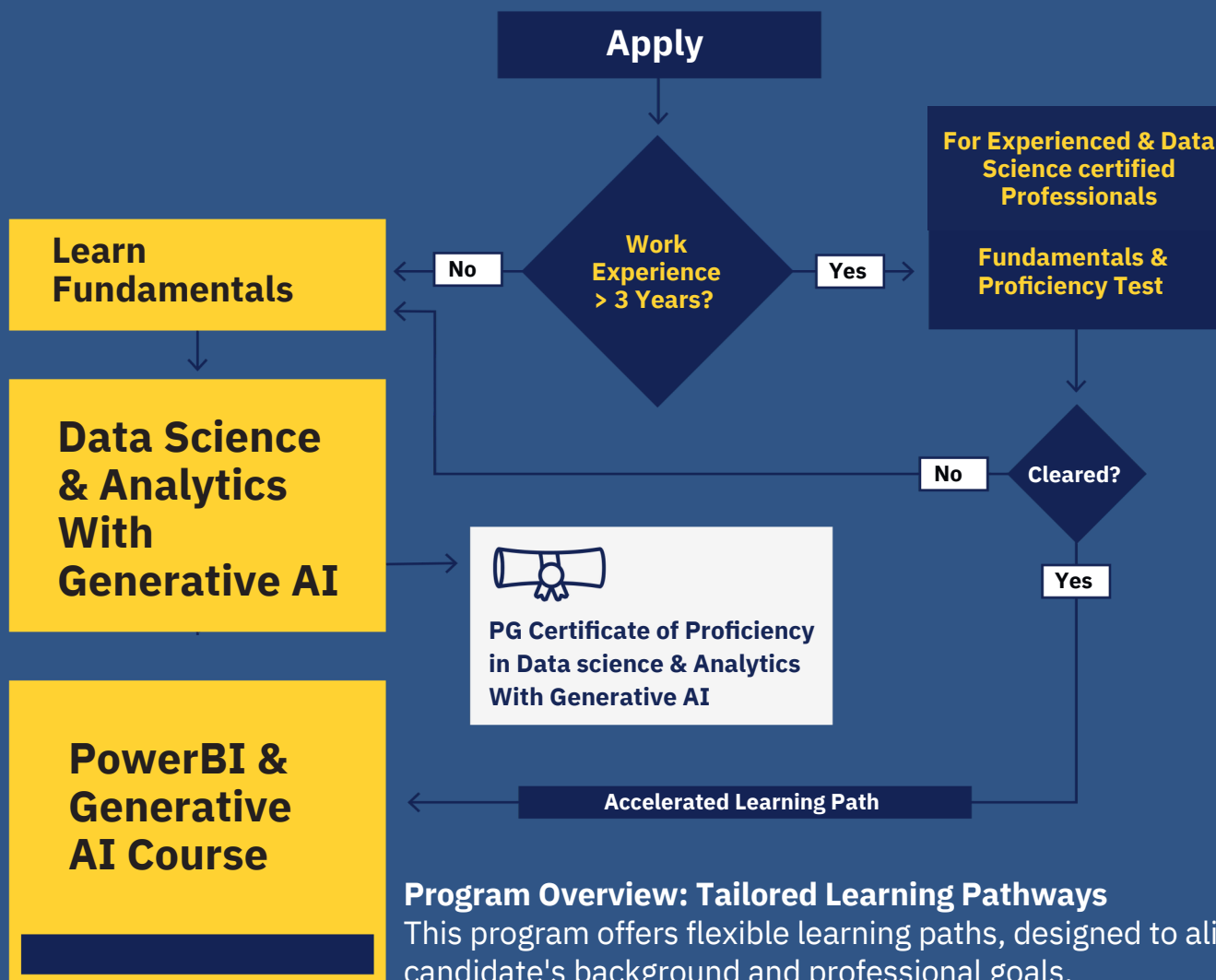
Highest Fresher Salary



Best Ed-tech
Platform to Start
Your Career with...

PROGRAM DELIVERY

FLEXIBLE LEARNING PATHS



Program Overview: Tailored Learning Pathways

This program offers flexible learning paths, designed to align with the candidate's background and professional goals.

For Freshers:

Candidates who are new to the field or lack prior certification can enroll in our comprehensive PG Certification in Data Science with Generative AI. This 6-month intensive course covers the fundamentals and advanced topics in Data Science and Generative AI, equipping students with the skills needed to excel in the industry. Additionally, students are provided with unlimited interview opportunities until they secure their first placement, ensuring a strong start to their career.

For Experienced Professionals:

Candidates with prior experience, knowledge, and certification in Data Science have the option to take a proficiency test. Upon passing, they can directly enroll in advanced courses such as Power BI and Generative AI. This path allows experienced professionals to fast-track their learning and focus on specialized skills that align with industry demands.



Certificate in PowerBI
& Generative AI

PROGRAM HIGHLIGHTS

To empower professionals with critical data science and AI competencies, Datacrew Education has designed a comprehensive 6-month Post Graduate Certification in Data Science and Analytics with Generative AI. This program offers participants an in-depth understanding of data science, analytics, and cutting-edge generative AI technologies that are increasingly sought after by leading companies. The curriculum emphasizes practical, industry-relevant skills, ensuring that participants are well-prepared to excel in real-world roles and become job-ready upon completion.



**6-Months
Program**



**216 Tech hrs +
Soft Skills 48 hrs
of total training**



**Unlimited
Interviews till
first Placement**



**PG Certificate from
IBM & Microsoft**



WHO IS THIS PROGRAM FOR?

- ★ Technology professionals who aspire to join data science and AI engineering teams.
- ★ Professionals seeking to develop a unique skill set at the intersection of data science, analytics, and generative AI.
- ★ Individuals who want to become experts in building scalable architectures and software systems for data science and AI implementation.
- ★ Technology leaders and managers aiming to lead data science and AI implementation within their organizations.
- ★ Early-career professionals looking to build robust data engineering and analytics skills.

AFTER THIS PROGRAM, YOU WILL

- ★ Become a technology expert capable of designing and implementing scalable technical architectures and software systems for data science and generative AI.
- ★ Perform the role of a full-stack engineer for data science and AI teams.
- ★ Qualify for roles such as Data Engineer, Data Systems Designer, Machine Learning Engineer, Generative AI Specialist, Technical Systems Architect, and more.
- ★ Gain practical, industry-relevant skills that will make you job-ready and competitive in the data science and AI job market.



CAREER JOURNEY @ DATACREW

Web Portfolio

Our students are trained to build web portfolios to showcase relevant skills, projects, videos, etc.



Resume Preparation

We make you interview ready by helping you choose the most relevant details to be added in every section of your resume



Mock Interviews

Mock interviews are conducted to familiarise students with the actual interview. They are asked technical & HR questions frequently asked by recruiters



Industry Projects

15+ industry projects make you ready for your dream job



Intensive Practical Sessions

80 practical: 20 theory approach gives you an exposure to real world IT projects & case studies before course completion



3 A Rule

Follow Our 3A Rule Mandatory for students to follow Attendance, Assessment and Assignment model with a minimum 90% score in each



COURSE CURRICULUM

DATA SCIENCE AND ANALYTICS WITH GENERATIVE AI

Week 1

Introduction to Data science & AI , Excel Fundamentals

- Overview of Data Science & AI
- Applications and Use Cases
- Introduction to Excel
- Basic Excel Functions and Formulas
- Data Entry and Formatting

Week 2

Working with Data in Excel, Python Programming Basics

- Data Visualization in Excel (Charts & Graphs)
- Pivot Tables and Advanced Excel Functions
- Introduction to Python
- Python Installation and Setup
- Basic Syntax and Data Types

Week 3

Data Structures & Control Flow in Python, Introduction to Functions

- Lists, Tuples, and Dictionaries
- Conditional Statements and Loops
- Defining and Calling Functions
- Scope and Lifetime of Variables
- Lambda Functions

Week 4

Building Your Python Environment & Libraries

- Setting Up Jupyter Notebooks
- Introduction to Python Libraries (NumPy, Pandas, Matplotlib)
- Working with Virtual Environments
- Managing Packages with pip

Week 5

Introduction to SQL, Relational Database Concepts

- Understanding Databases and SQL
- Basic SQL Commands (SELECT, INSERT, UPDATE, DELETE)
- Data Types in SQL
- Keys and Constraints
- Designing Relational Databases

Week 6

Advanced SQL Queries & Data Manipulation

- Joins and Subqueries
- Aggregation and Grouping
- Window Functions
- Data Normalization and Denormalization
- Indexing and Performance Optimization

Week 7

Descriptive Statistics & Data Exploration

- Measures of Central Tendency (Mean, Median, Mode)
- Measures of Dispersion (Variance, Standard Deviation)
- Data Visualization Techniques
- Exploratory Data Analysis (EDA)

Week 8

Probability & Hypothesis Testing, Introduction to Pandas

- Basic Probability Concepts
- Probability Distributions
- Hypothesis Testing (t-test, chi-square test)
- Introduction to Pandas for Data Analysis
- DataFrames and Series

Week 9

Data Cleaning, Preprocessing, and Numerical Computing with Pandas and NumPy; Introduction to Machine Learning

- Handling Missing Values
- Data Transformation Techniques
- Merging and Joining DataFrames
- Data Wrangling and Reshaping
- Introduction to NumPy Arrays
- Array Operations and Broadcasting
- Linear Algebra with NumPy
- Overview of Machine Learning
- Types of Machine Learning (Supervised, Unsupervised, Reinforcement)

Week 10

Data Analytics with Power BI

- Power BI Basics
- Introduction to Power BI Interface
- Importing and Transforming Data
- Connecting Data from Different Sources
- Connecting to Excel, SQL Server, Web, and other data sources
- Data Refresh and Scheduled Refresh
- Data Analysis Expressions (DAX)
- Introduction to DAX
- Creating Calculated Columns and Measures
- Using DAX Functions

- Creating Dashboards
- Designing Interactive Dashboards
- Using Visualizations and Custom Visuals
- Dashboard Sharing and Collaboration
- Connecting Python with Power BI
- Running Python Scripts in Power BI
- Visualizing Python Data in Power BI
- Connecting SQL with Power BI
- Writing SQL Queries in Power BI
- Using SQL Server Database in Power BI
- Projects in Power BI
- Real-world Projects and Case Studies
- Building End-to-End Solutions
- Best Practices for Power BI Projects

Week 11

Supervised Learning Algorithms (Classification & Regression)

- Linear Regression
- Logistic Regression
- Decision Trees
- Random Forests
- Model Evaluation Metrics (Accuracy, Precision, Recall, F1-Score)

Week 12

Unsupervised Learning (Clustering & Dimensionality Reduction)

- K-Means Clustering
- Hierarchical Clustering
- Principal Component Analysis (PCA)
- t-Distributed Stochastic Neighbor Embedding (t-SNE)

Week 13

Model Evaluation & Tuning, Introduction to Scikit-learn

- Train-Test Split and Cross-Validation
- Hyperparameter Tuning (Grid Search, Random Search)
- Model Selection Criteria
- Introduction to Scikit-learn Library

Week 14

Introduction to Deep Learning, Artificial Neural Networks

- Basics of Neural Networks
- Activation Functions
- Training Neural Networks
- Overfitting and Regularization Techniques

Week 15

Convolutional Neural Networks (CNNs) for Image Recognition

- Introduction to CNNs
- Convolution and Pooling Layers
- Building CNNs with Keras and TensorFlow
- Image Data Augmentation

Week 16

Recurrent Neural Networks (RNNs) for Sequence Data

- Introduction to RNNs
- LSTM and GRU Networks
- Time Series Prediction with RNNs
- Text Generation with RNNs

Week 17

Introduction to Time Series Analysis, ARIMA Models

- Time Series Components
- Stationarity and Differencing
- Autoregressive Integrated Moving Average (ARIMA) Models
- Model Diagnostics

Week 18

Time Series Forecasting with Prophet

- Introduction to Facebook Prophet
- Handling Seasonal Data
- Forecasting Future Values
- Visualizing Forecasts

Week 19

Introduction to Natural Language Processing (NLP)

- Text Data and Preprocessing
- Tokenization Techniques
- Stop Words Removal
- Stemming and Lemmatization

Week 20

Text Preprocessing & Tokenization, Sentiment Analysis

- Advanced Text Cleaning
- Bag-of-Words and TF-IDF
- Introduction to Sentiment Analysis
- Implementing Sentiment Analysis with Python

Week 21

Topic Modeling & Text Classification with NLP

- Introduction to Topic Modeling
- Latent Dirichlet Allocation (LDA)
- Text Classification Algorithms
- Evaluating Text Classification Models

Week 22

Computer Vision

- Introduction to Computer Vision
- Image Processing Techniques
- Object Detection and Recognition
- Image Segmentation
- Applications in Real-world Scenarios

Week 23

Introduction to MLOps, Model Deployment & Monitoring

- Overview of MLOps
- Model Deployment Strategies
- Monitoring Deployed Models
- Handling Model Drift

Week 24

Version Control for Machine learning Projects

- Introduction to Git and GitHub
- Version Control Best Practices
- Collaborating on ML Projects
- Managing Model Versions

Week 25

Introduction to Generative AI (GANs & VAEs)

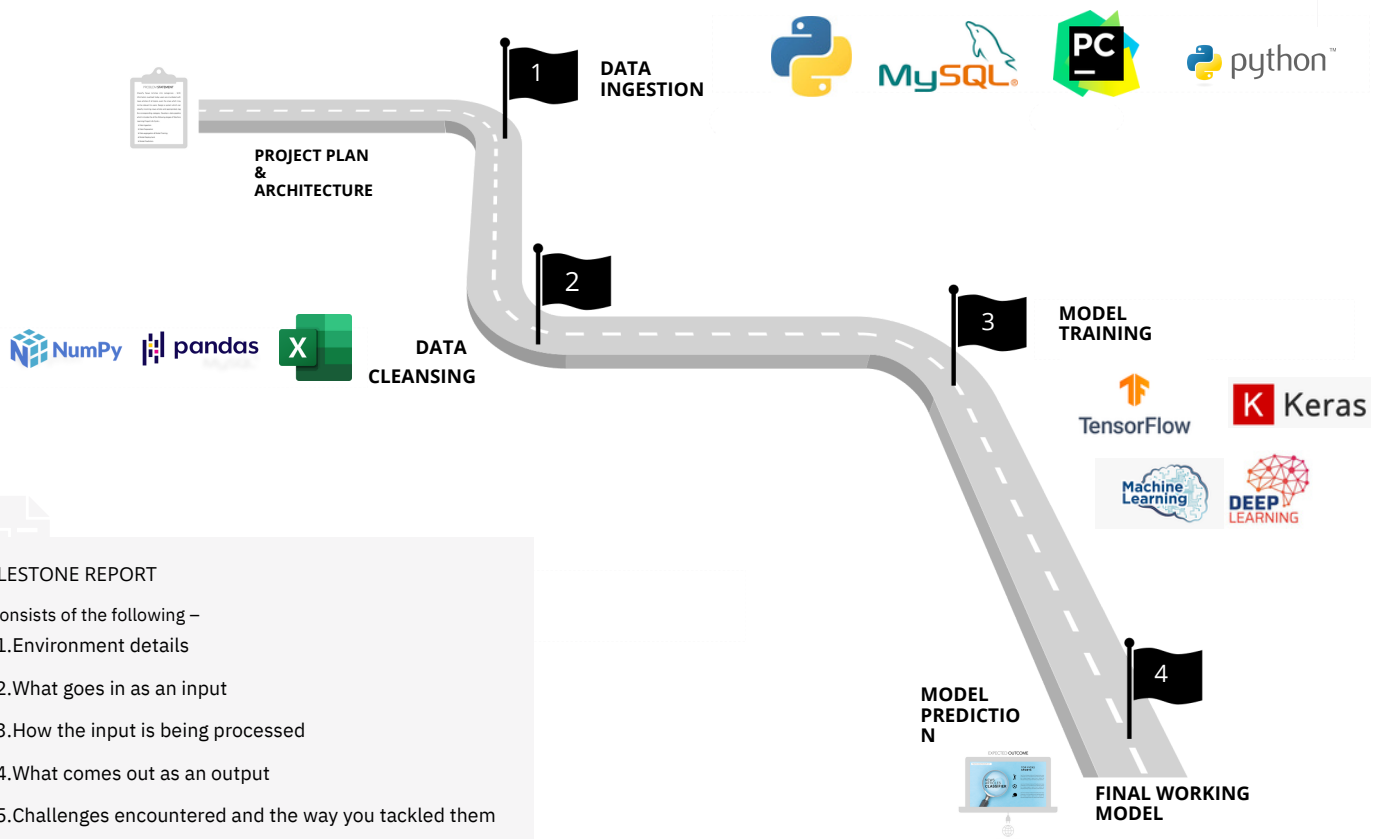
- Advanced Text Cleaning
- Bag-of-Words and TF-IDF
- Introduction to Sentiment Analysis
- Implementing Sentiment Analysis with Python

Week 26-27

Final Projects Deployment and Presentation

- Project Planning and Proposal
- Data Collection and Preprocessing
- Model Development and Evaluation
- Creating Project Reports and Presentations
- Final Project Presentations

CAPSTONE PROJECT



FACULTY & ACADEMIC ADVISORS*



Ms. Supriya Jadhav

Data Scientist - Faculty Head - Mentorship 10+ years

Supriya Jadhav hails from Army Institute of Technology, College of Engineering, Pune, she has done her M.E, Mechanical design engineering, has been represented India at Bhutan working very closely with the elite authority while empowering students into the field of Data Science || Ex DRDO || Ex. Serviceman || International Trainer || corporate training || Artificial Intelligence || Data Science || Industrial Trainer



Ms. Umaiya Khalid

Sr. Mentor Softs skills

Umaiya Khalid is performance -oriented, and dedicated to maintaining agility, responsiveness, and efficiency in any given field. Successful history in bringing in top-notch clients & and staff. Improving operational strategies and boosting team performance. An articulate and encouraging leader with a decisive nature and forward-thinking approach. Offers expertise in Soft skills, People Management Advertising, Marketing, and Events



CERTIFICATE



DATA CREW
UNBOX LEARNING EXPERIENCE

Certificate of Achievement

Nishita Mukherjee

Has Successfully Secured **PG Certification in Data Science & Analytics With Generative AI** At Datacrew Education India Pvt. Ltd
with Excellent Performance

Between 01/06/2023 to 05/01/2024

Issued Date : 30/01/2024

DATA CREW EDUCATION INDIA PRIVATE LIMITED

Supriya Jadhav DIRECTOR
Co-Founder | CTO

AWARD



Voice of success



Lenovo

Nishita Mukherjee

Placed at Lenovo, HQ Operations Manager, (12 LPA)

I would like to thank the DataCrew team for assisting me and providing guidance along the journey starting from mentoring to getting placed into a managerial position with a reputed brand as **Lenovo**! A big Thank You to Sahil and Supriya! I recommend each learner associated with DataCrew take the guidance of the team in learning valuable skills. Kudos to Sahil and Supriya for creating this platform for learners to become successful in their respective careers. Do join a Data Science course with DataCrew to realize your dream job! Cheers to the DataCrew team !!



SANKEY SOLUTIONS

Yogesh Patil

Sankey Solutions, Lead Data Analyst, (7.65 LPA)

I have been mentored by DataCrew, it helped me grow in the IT field, their Full Stack Course is well versed with the current Industry standards. The Complete support i received from new Learning Concepts to final placement, I would highly recommend this course to students trying to enter in IT industry and Working Professional. Thanks a lot DataCrew.



Shivaraj Patil

V-Guard, BI Operation sales Executive, (7.LPA)

Its been a privilege to be mentored & and advised by DataCrew for my career growth to ensure my stability at the workplace as well. Thank you for mentoring @Sahil agarwal @ Supriya jadhav



tenzai

Aditi Pande

Tenzai System, Data Scientist,(5.LPA)

DataCrew has played a pivotal role in propelling my career and distinguishing myself from the herd. The instructors are working professionals and they not only teach you the critical elements but also advise you on how to approach learning in general. The mock interviews and soft skill sessions are a crucial component of the program where you learn how to effectively display your skills to make an impression on the interviewers.



Myntra

Dhanyashree Gowda
Myntra, Data Analyst (8.LPA)

I'm happy to share that I'm starting a new position as Data Analyst at Myntra. I would also like to extend my gratitude to DataCrew for providing opportunities to land this job. Sahil Agarwal I can't thank you enough for hearing me out so patiently when in need.



accelya

Ayush Kale

Accelya Group- Data Analyst (5. LPA)

It's been a privilege to be mentored & and advised by DataCrew for my career growth to ensure my stability at the workplace as well. I am been working happily with my current organisation & and would IT graduate to do a course with DataCrew. Thank you for always being there @Sahil agarwal @ Supriya jadhav



Datacrew

CAREER SUPPORT

All program participants will receive career support through Datacrew Ed-Tech



Unlimited Interviews till first Placement

We regularly host career fairs across major cities, offering our students unlimited opportunities to interview with top industry leaders. At our recent fair, esteemed hiring partners such as Accenture, HSBC, UST-Global, Rakuten, Myntra, DXC Technologies, Tredence, Brillio, TheMathCompany, and AB InBev conducted over 300 interviews, ensuring that our students are on the fast track to their first placement



Personal Career Coach

Get access to career mentoring depending upon your experience in the industry with a personal career coach. The coaches are either industry experts or have transitioned to technology teams, so candidates benefit from their guidance on how to build a career in the industry.



e-Portfolio & Resume Building Sessions

An e-portfolio is a snapshot of all the projects done and skills acquired during the program that is shareable across social media channels. We also help you build your resume to highlight your technology skill-set along with your previous professional experience.



Job Board

The program provides candidates access to the Datacrew Job Board. 50+ organizations approach us with job opportunities which are shared through the Job Board with our candidates. We've seen over 500+ alumni transition to the careers of their choice, with an average salary hike of 48%.

COMPANIES THAT HIRE FROM DATACREW ED-TECH



AND MANY MORE...

Start Learning today

Post Graduate Certificate in Data Science & Analytics with Generative AI



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