Generative AI Data Analyst

Self-Paced Program

Course Curriculum Overview

The AI and Data Analytics Training course at WFI is an online course, you'll gain the knowledge and skills needed to become a proficient Data Analyst, even if you have no prior experience in the field.

This course will equip you with the tools to analyze complex data and help business leaders make data-driven decisions. Through a rigorous curriculum that includes concepts, theories, and hands-on projects, you will develop a strong foundation in AI and data analytics.

WorkForce
INSTITUTE

Invest in Acquiring the Required Skills

Invest in acquiring the essential skills to excel in the world of **AI and Data Analytics**. This course is not just a Data Analytics training, it's a comprehensive pathway to launching a successful career in AI and Data Analytics. You will become part of an **exclusive network of top 1% Data Analytics professionals** from around the globe, gaining access to valuable networking events, the latest industry trends, insightful resources, webinars, and much more.

By completing this course, you'll develop critical skills to enhance data analysis and decision-making, learning advanced techniques and methodologies used by AI and Data Analytics experts. You'll gain both theoretical knowledge and hands-on experience in analyzing and interpreting data, preparing you to tackle real-world challenges.

Upon completion, you'll **earn a course completion certificate certificate.**

WorkForce
INSTITUTE

Who Should Attend This Training?

The AI and Data Analyst course is a versatile program designed for anyone interested in pursuing a career in AI and Data Analytics. Whether you're a millennial, a college graduate, or someone with a diploma, this program is tailored to fit individuals at any stage of their career:

New Career Seekers

AI and Data Analytics are rapidly growing fields with high demand and lucrative opportunities for those with the right skills. This program provides the essential training to help you enter these exciting industries.

Career Changers

If you've always had an interest in AI and Data Analytics and are looking to switch careers, this program offers foundational training to help you learn the basics and make a successful transition into the field.

Career Advancers

If you've been working in data-related roles but want to take your career to the next level, this program's advanced training and coaching sessions with industry experts will help you enhance your skills and improve your ability to make data-driven decisions.

Jobs You Will Be Ready For

Here is a list of real-world jobs that you can apply this bootcamp to:

- Data Analyst
- AI/Data Scientist
- Business Intelligence Analyst
- Machine Learning Engineer

Generative AI and Data Analysis Course Structure

Throughout this course, you will go through lecture videos, YouTube links, blogs and a variety of exercises in online self-paced format.

Online Modules

Self-paced learning through online course modules within our platform allowing you the flexibility with the hours you can choose to study within the week.

Course Outline

This comprehensive course provides hands-on labs, real-world projects, along with a focus on key AI and data analytics skills. Designed for those aiming to enter AI-driven industries, the program covers foundational to advanced concepts in artificial intelligence, machine learning, and data analytics. Learners will also gain expertise in deploying AI models and building real-world data pipelines, with a strong emphasis on practical applications.

No prior experience or college degree is required, making it ideal for individuals looking to start a career in AI or data analytics. However, basic skills in **Python programming and using the command line is required**.

WorkForce
INSTITUTE

Curriculum

Module 1: Intro to AI & Deep Learning

This module introduces the basics of AI and Deep Learning, covering key concepts like neural networks and their real-world applications. It differentiates between AI, machine learning, and deep learning, providing a solid foundation for more advanced topics.

Module 2: Basic Data Analytics & Statistics

Learners will explore basic statistical concepts, such as mean, variance, and standard deviation, along with data analysis techniques. This module helps build skills in summarizing and visualizing data for better decision-making.

Module 3: Introduction to Machine Learning

This module covers the fundamentals of machine learning, including supervised, unsupervised, and reinforcement learning. Learners will also become familiar with key algorithms like linear regression and decision trees.

Module 4: Data Collection & Preparation

Focusing on data preprocessing, this module teaches how to clean, normalize, and engineer features from raw data, while ensuring proper data splitting for training, validation, and testing.

Module 5: Basics of Generative AI Models

Learners will explore generative models like GANs and VAEs, which create new data based on existing patterns, and understand their challenges and applications in image and text generation.

Module 6: Data Exploration & Visualization

This module covers tools and techniques for visualizing data, helping learners identify trends, outliers, and patterns using charts, graphs, and plots with libraries like Matplotlib and Seaborn.

Module 7: AI Model Training & Evaluation

Learners will focus on training machine learning models and evaluating their performance using metrics like accuracy, precision, and recall. This module emphasizes model testing and avoiding overfitting.

Module 8: Model Tuning & Optimization

This module covers hyperparameter tuning, regularization, and optimization techniques to improve model performance, helping learners fine-tune models for better accuracy and efficiency.

Module 9: Starting with TensorFlow & PyTorch

Learners will explore the foundations of deep learning by working hands-on with TensorFlow and PyTorch. This module emphasizes building basic neural networks, understanding tensor operations, and leveraging automatic differentiation with Autograd. Through practical exercises, learners will create simple models, compare frameworks, and grasp the core mechanics of training deep learning systems.

Module 10: Deploying AI Models

This module covers the deployment of AI models into production, teaching learners about tools like TensorFlow Serving and Docker, as well as monitoring and maintaining deployed models.

Module 11: Report, Document, & Communicate

Learners will focus on effectively communicating AI results, creating clear reports, and documenting code to ensure both technical and non-technical stakeholders can understand the findings.

Module 12: Building Your First AI Model

In the capstone project, learners will apply everything they've learned to build, train, and deploy an AI model, culminating in a final report that demonstrates their ability to work through the entire AI pipeline.