AI Engineer

PROGRAM BROCHURE

YOUR GOAL IS OUR MISSION

Our aim is to equip learners with the skills necessary to pursue successful careers in AI

TABLE OF CONTENTS

DATAMITES® ACCOLADES

10+ Years of Excellence ★ **100K+** Learners ★ **20+** Accreditations

AWARDED GLOBAL TOP 5

DATA SCIENCE INSTITUTES BY IABAC

AWARDED TOP 10

BEST INSTITUTE BY SILICON INDIA

TECHGIG

India's largest tech community

1ST RANKED INSTITUTE

BASED ON THE RESEARCH STUDY BY TECHGIG, DATAMITES IS RANKED AS THE TOP INSTITUTE FOR DATA SCIENCE

GCREDO
Global Credentialing Office

1ST RANKED AI INSTITUTE

GLOBAL CREDENTIALLING OFFICE AWARDED DATAMITES THE 1ST RANKED INSTITUTE FOR AI

CII
Confederation of Indian Industry

CII PARTNER

DATAMITES® CHOSEN AS A PARTNER BY CII FOR PROVIDING AI TRAINING C-LEVEL EXECUTIVES MNCS IN INDIA

NASSCOM®

MINISTRY OF ELECTRONICS & INFORMATION TECHNOLOGY GOVERNMENT OF INDIA

NASSCOM PARTNER

ALIGNING CURRICULUM WITH INDUSTRY REQUIREMENTS. ASSESS AND CERTIFY LEARNERS BY GOVT OF INDIA

WHY DATAMITES?

TOP 4 REASONS

1 **Curriculum aligned with Industry**
Syllabus aligned with industry as per global accreditation bodies

2 **Ashok Veda as Mentor**
Highly respected Data Science coach and AI Expert as lead mentor ensuring quality mentorship

linkedin.com/in/ashokveda/

3 **Realtime Internship**
Every learner gets Internship in the selected industry with Analytics, Data Science and AI roles for real-time experience, which is valuable in their career progress

4 **Top Placement records**
A dedicated job assistance team helped thousands of learners in transitioning into their dream job.

Check out Success Stories

KEY HIGHLIGHTS

1. Flexible Learning
Learners can repeat sessions, change batches , change learning modes, ad-hoc doubts sessions anytime.

2. Job-oriented curriculum
The course curriculum is aligned with Industry requirement by expert content team, ensuring job-oriented curriculum

3. Elite instructors
Elite mentors and faculties members holding real-time experience from leading companies. and rom league institutes such as IIMs

4. Exclusive Practice Lab
Leaners get exclusive access to AI and Data Science online lab enabling learners to practice the concepts taught in class

5. Learning Community
Exclusive Online learning community with thousands of active learners, mentors and Alumni available for clarifying doubts and mentoring

6. Life-Time Access
Learners have life-time access to core materials supporting continuous learner beyond the course, ensuring continual learning

7. Unlimited Projects
Unlimited projects with flexibility to choose from various industries but a minimum of 5 projects are required to complete projects phase.

8. Placement Assistance
A dedicated placement assistance team will work with the learners to support in career transition. DataMites records highest placements in India.

PROGRAM STRUCTURE

STRUCTURED 3 PHASE LEARNING APPROACH

The course for intermediate and expert learners in the field of AI. This is a career-oriented program, designed to impart a strong foundation in the core areas of machine learning and AI, incl. Python, Statistics, Machine Learning, Visual Analytics, ML, Deep Learning, Computer Vision, and Natural Language Processing

- ✓ **9** Months program
- ✓ **20** Hours learning a week
- ✓ **400+** Learning hours
- ✓ **10+** Capstone projects
- ✓ **1** Client/Live Project
- ✓ Global **Certifications**
- ✓ **Internship** experience certificate
- ✓ **Job Ready** Program

PHASE -1
Pre-course study
2 weeks

- Pre course Self-Study
- High Quality Videos with easy learning approach.

PHASE -2
Live Training
5 months

- 5-month duration
- Live Training
- 20 hour a week
- Comprehensive syllabus
- Hands-on Projects
- Expert trainers and mentors

PHASE -3
Internship & projects
4 months

- 4-Month duration
- project mentoring
- 10+ capstone projects
- Real-time internship
- 1 client /Live project

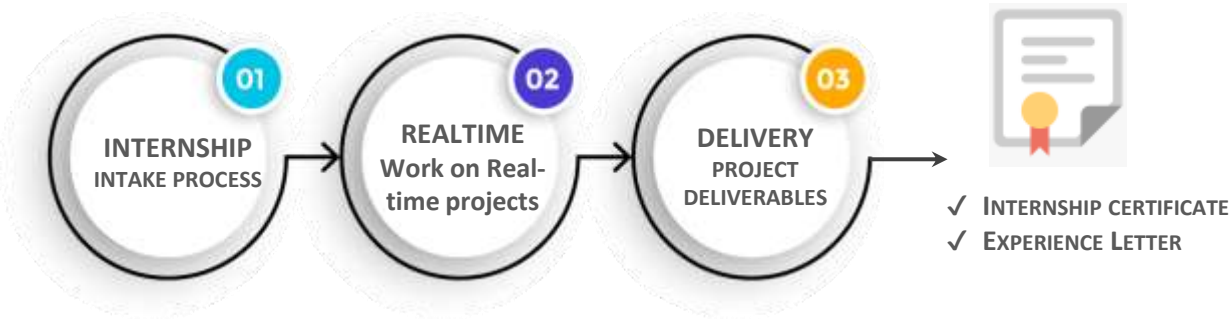
Certifications
- IABAC Cert
- PeopleCert Cert
- IBM Cert
- Course Completion
- Internship Cert

REAL-TIME INTERNSHIP

REAL-WORLD EXPERIENCE IN IMPLEMENTING ML PROJECTS

DataMites has exclusive partnership with leading AI companies providing internship for DataMites learners.

These internships provide a great opportunity for the learners to apply the knowledge gained in developing real-world data model that add value to the businesses with help of dedicated team of DataMites experts and Mentors.



internship@datamites.com

JOB READY PROGRAM

END TO END SUPPORT IN JOB ASSISTANCE

DEDICATED PLACEMENT ASSISTANCE TEAM (PAT) PROVIDES END TO END ASSISTANCE IN KEY AREAS TO PROVIDE SMOOTH TRANSITION TO ARTIFICIAL INTELLIGENCE CAREER.

PLACEMENT PARTNERS

KANTAR · IQVIA · genpact · Capgemini · cognizant · SymphonyAI · L&T Infotech · SagasIT Analytics · EXAMROOM.AI · CISCO · Mercedes-Benz · DELL · SUTHERLAND · HCL · Affine

PROGRAM CURRICULUM

CERTIFIED DATA SCIENTIST - COURSE BUNDLE

- DataMites® AI Engineer– Course Bundle is one the **world's most popular, comprehensive, job-oriented, advanced** AI course.
- The course is **vigorously updated** as per the industry requirements and fine-tuned to make the learning process structured enabling lean learning.

BUNDLE CODE	CDM-AIE-BUN-071	LEARNING HOURS	400
ADD-ON	Internship, Placements	TOTAL DURATION	9 Months

ORDER	COURSE	CODE	ORDER
1	Data Science Foundation	CDM-DSF-112	20
2	Python Foundation	CDM-PYF-110	40
3	Statistics Essentials	CDM-STA-139	20
4	Machine Learning Associate	CDM-MLA-130	40
5	Machine Learning Expert	CDM-MLE-113	40
6	Advanced Data Science	CDM-ADS-114	40
7	Database: SQL and MongoDB	CDM-DBM-120	40
8	Version Control with Git	CDM-GIT-115	20
9	Big Data Foundation	CDM-BDF-117	20
10	Certified Business Intelligence (BI) Analyst	CDM-BIA-119	20
11	AI Foundation	CDM-AIF-128	20
12	AI Expert	CDM-AIE-124	80

Important Note: The curriculum is subjected to change as required by the global accreditation bodies to align with industry requirements. Please check with your counsellor or drop email to care@datamites.com for updated curriculum

DATA SCIENCE FOUNDATION

COURSE CODE	CDM-DSF-112	LECTURE HOURS	8 hrs.
PREREQUISITES	Python Foundation	LEARNING HOURS	20 hrs.

MODULE 1

DATA SCIENCE COURSE INTRODUCTION

- CDS Course Introduction
- 3 Phase Learning
- Learning Resources
- Assessments & Certification Exams
- DataMites Mobile App
- Support Channels

MODULE 2

DATA SCIENCE ESSENTIALS

- Introduction to Data Science
- Evolution of Data Science
- Data Science Terminologies
- Data Science vs AI/Machine Learning
- Data Science vs Analytics

MODULE3

DATA SCIENCE DEMO

- Business Requirement: Use Case
- Data Preparation
- Machine learning Model building
- Prediction with ML model
- Delivering Business Value.

MODULE 4

ANALYTICS CLASSIFICATION

- Types of Analytics
- Diagnostic Analytics
- Predictive Analytics
- Prescriptive Analytics

MODULE 5

DATA SCIENCE AND RELATED FIELDS

- Introduction to AI
- Introduction to Computer Vision
- Introduction to Natural Language Processing
- Introduction to Reinforcement Learning
- Introduction to GAN
- Introduction to Generative Passive Models

MODULE 6

DATA SCIENCE ROLES & WORKFLOW

- Data Science Project workflow
- Roles: Data Engineer, Data Scientist, ML Engineer and MLOps Engineer
- Data Science Project stages.

MODULE 7

MACHINE LEARNING INTRODUCTION

- What Is ML? ML Vs AI
- ML Workflow, Popular ML Algorithms
- Clustering, Classification And Regression
- Supervised Vs Unsupervised

MODULE 8

DATA SCIENCE INDUSTRY APPLICATIONS

- Data Science in Finance and Banking
- Data Science in Retail
- Data Science in Health Care
- Data Science in Logistics and Supply Chain
- Data Science in Technology Industry
- Data Science in Manufacturing
- Data Science in Agriculture

TOOLS/PLATFORMS COVERED


PYTHON FOUNDATION

COURSE CODE	CDM-PYF-110	LECTURE HOURS	16 hrs.
PREREQUISITES	None	LEARNING HOURS	40 hrs.

MODULE 1

PYTHON BASICS

- Introduction of python
- Installation of Python and IDE
- Python objects
- Python basic data types
- Number & Booleans, strings
- Arithmetic Operators
- Comparison Operators
- Assignment Operators
- Operator's precedence and associativity

MODULE 2

PYTHON CONTROL STATEMENTS

- IF Conditional statement
- IF-ELSE
- NESTED IF
- Python Loops basics
- WHILE Statement
- FOR statements
- BREAK and CONTINUE statements

MODULE 3

PYTHON DATA STRUCTURES

- Basic data structure in python
- String object basics and inbuilt methods
- List: Object, methods, comprehensions
- Tuple: Object, methods, comprehensions
- Sets: Object, methods, comprehensions
- Dictionary: Object, methods, comprehensions

MODULE 4

PYTHON FUNCTIONS

- Functions basics
- Function Parameter passing
- Iterators
- Generator functions
- Lambda functions
- Map, reduce, filter functions

TOOLS/PLATFORMS COVERED


STATISTICS ESSENTIALS

COURSE CODE	CDM-STA-139	LECTURE HOURS	8 hrs.
PREREQUISITES	None	LEARNING HOURS	20 hrs.

MODULE 1

OVERVIEW OF STATISTICS

- Descriptive And Inferential Statistics
- Basic Terms Of Statistics
- Types Of Data

MODULE 2

HARNESSING DATA

- Random Sampling
- Sampling With Replacement And Without Replacement
- Cochran's Minimum Sample Size
- Simple Random Sampling
- Stratified Random Sampling
- Cluster Random Sampling
- Systematic Random Sampling
- Biased Random Sampling Methods
- Sampling Error
- Methods Of Collecting Data

MODULE 3

EXPLORATORY DATA ANALYSIS

- Exploratory Data Analysis Introduction
- Measures Of Central Tendencies: Mean, Median And Mode
- Measures Of Central Tendencies: Range, Variance And Standard Deviation
- Data Distribution Plot: Histogram
- Normal Distribution
- Z Value / Standard Value
- Empherical Rule and Outliers
- Central Limit Theorem
- Normality Testing
- Skewness & Kurtosis
- Measures Of Distance: Euclidean, Manhattan And Minkowski Distance

MODULE 4

HYPOTHESIS TESTING

- Hypothesis Testing Introduction
- P- Value, Confidence Interval
- Parametric Hypothesis Testing Methods
- Hypothesis Testing Errors : Type I And Type Ii
- One Sample T-test
- Two Sample Independent T-test
- Two Sample Relation T-test
- One Way Anova Test

MODULE 5

CORRELATION AND REGRESSION

- Correlation Introduction
- Direct/Positive Correlation
- Indirect/Negative Correlation
- Regression
- Choosing Right Method.

MACHINE LEARNING ASSOCIATE

COURSE CODE	CDM-MLA-130	LECTURE HOURS	16 hrs.
PREREQUISITES	Python Foundation, DSF	LEARNING HOURS	40 hrs.

MODULE 1

MACHINE LEARNING INTRODUCTION

- What Is ML? ML Vs AI
- ML Workflow, Popular ML Algorithms
- Clustering, Classification And Regression
- Supervised Vs Unsupervised

MODULE 2

PYTHON NUMPY & PANDAS PACKAGE

- NumPy & Pandas functions
- Array – Data Structure
- Core Numpy functions
- Matrix Operations
- Data Frame and Series – Data Structure
- Data munging with Pandas
- Imputation and outlier analysis

MODULE 3

VISUALIZATION WITH PYTHON

- Visualization Packages (Matplotlib)
- Components Of A Plot, Sub-Plots
- Basic Plots: Line, Bar, Pie, Scatter
- Advanced Python Data Visualizations

MODULE 4

ML ALGO: LINEAR REGRESSSION

- Introduction to Linear Regression
- How it works: Regression and Best Fit Line
- Modeling and Evaluation in Python

MODULE 5

ML ALGO: KNN

- Introduction to KNN
- How It Works: Nearest Neighbor Concept
- Modeling and Evaluation in Python

MODULE 6

ML ALGO: LOGISTIC REGRESSION

- Introduction to Logistic Regression
- How it works: Classification & Sigmoid Curve
- Modeling and Evaluation in Python

MODULE 7

ML ALGO: K MEANS CLUSTERING

- Understanding Clustering (Unsupervised)
- K Means Algorithm
- How it works : K Means theory
- Modeling in Python

TOOLS/PLATFORMS COVERED

MACHINE LEARNING EXPERT

COURSE CODE	CDM-MLE-113	LECTURE HOURS	16 hrs.
PREREQUISITES	Python Foundation, DSF	LEARNING HOURS	40 hrs.

MODULE 1

MACHINE LEARNING INTRODUCTION

- What Is ML? ML Vs AI
- ML Workflow, Popular ML Algorithms
- Clustering, Classification And Regression
- Supervised Vs Unsupervised

MODULE 2

PRINCIPLE COMPONENT ANALYSIS (PCA)

- Building Blocks Of PCA
- How it works: Finding Principal Components
- Modeling PCA in Python

MODULE 3

ML ALGO: DECISION TREE

- Random Forest Ensemble technique
- How it works: Bagging Theory
- Modeling and Evaluation in Python

MODULE 4

ML ALGO: NAÏVE BAYES

- Introduction to Naive Bayes
- How it works: Bayes' Theorem
- Naive Bayes For Text Classification
- Modeling and Evaluation in Python

MODULE 5

GRADIENT BOOSTING, XGBOOST

- Introduction to Boosting and XGBoost
- How it works: weak learners' concept
- Modeling and Evaluation of in Python

MODULE 6

ML ALGO: SUPPORT VECTOR MACHINE (SVM)

- Introduction to SVM
- How It Works: SVM Concept, Kernel Trick
- Modeling and Evaluation of SVM in Python

MODULE 7

ARTIFICIAL NEURAL NETWORK (ANN)

- Introduction to ANN
- How It Works: Back prop, Gradient Descent
- Modeling and Evaluation of ANN in Python

MODULE 8

ADVANCED ML CONCEPTS

- Adv Metrics (Roc_Auc, R2, Precision, Recall)
- K-Fold Cross validation
- Grid And Randomized Search CV In Sklearn
- Imbalanced Data Set : Smote Technique
- Feature Selection Techniques

TOOLS/PLATFORMS COVERED


ADVANCED DATA SCIENCE

COURSE CODE	CDM-ADS-114	LECTURE HOURS	16 hrs.
PREREQUISITES	Python Foundation, MLE, DSF	LEARNING HOURS	40 hrs.

MODULE 1

TIME SERIES FORECASTING - ARIMA

- What is Time Series?
- Trend, Seasonality, cyclical and random
- Autoregressive Model (AR)
- Moving Average Model (MA)
- Stationarity of Time Series
- ARIMA Model
- Autocorrelation and AIC

MODULE 2

FEATURE ENGINEERING

- Introduction to Features Engineering
- Transforming Predictors
- Feature Selection methods
- Backward elimination technique
- Feature importance from ML modeling

MODULE 3

SENTIMENT ANALYSIS

- Introduction to Sentiment Analysis
- Python packages: TextBlob, NLTK
- Case study: Twitter Live Sentiment Analysis

MODULE 4

REGULAR EXPRESSIONS WITH PYTHON

- Regex Introduction
- Regex codes
- Text extraction with Python Regex

MODULE 5

ML MODEL DEPLOYMENT WITH FLASK

- Introduction to Flask
- URL and App routing
- Flask application – ML Model deployment

MODULE 6

ADVANCED DATA ANALYSIS WITH MS EXCEL

- MS Excel core Functions
- Pivot Table
- Advanced Functions (VLOOKUP, INDIRECT..)
- Linear Regression with EXCEL
- Goal Seek Analysis
- Data Table
- Solving Data Equation with EXCEL
- Monte Carlo Simulation with MS EXCEL

MODULE 7

AWS CLOUD FOR DATA SCIENCE

- Introduction of cloud
- Difference between GCC, Azure,AWS
- AWS Service (EC2 and S3 service)
- AWS Service (AMI), AWS Service (RDS)
- AWS Service (IAM), AWS (Athena service)
- AWS (EMR), AWS, AWS (Redshift)
- ML Modeling with AWS Sage Maker

MODULE 8

AZURE FOR DATA SCIENCE

- Introduction to AZURE ML studio
- Data Pipeline and ML modeling with Azure

TOOLS/PLATFORMS COVERED

Natural Language ToolKit

python

ADVANCED EXCEL

Flask
web development, one drop at a time

aws

Amazon SageMaker

Azure Machine Learning

DATABASE: SQL AND MONGODB

COURSE CODE	CDM-DBM-120	LECTURE HOURS	16 hrs.
PREREQUISITES	None	LEARNING HOURS	40 hrs.

MODULE 1

DATABASE INTRODUCTION

- DATABASE Overview
- Key concepts of database management
- CRUD Operations
- Relational Database Management System
- RDBMS vs No-SQL (Document DB)

MODULE 2

SQL BASICS

- Introduction to Databases
- Introduction to SQL
- SQL Commands
- MY SQL workbench installation
- Comments
- import and export dataset

MODULE 3

DATA TYPES AND CONSTRAINTS

- Numeric, Character, date time data type
- Primary key, Foreign key, Not null
- Unique, Check, default, Auto increment

MODULE 4

DATABASES AND TABLES (MySQL)

- Create database
- Delete database
- Show and use databases
- Create table, Rename table
- Delete table, Delete table records
- Create new table from existing data types
- Insert into, Update records
- Alter table

MODULE 5

SQL JOINS

- Inner join
- Outer join
- Left join
- Right join
- Cross join
- Self join

MODULE 6

SQL COMMANDS AND CLAUSES

- Select, Select distinct
- Aliases, Where clause
- Relational operators, Logical
- Between, Order by, In
- Like, Limit, null/not null, group by
- Having, Sub queries

MODULE 7

DOCUMENT DB/NO-SQL DB

- Introduction of Document DB
- Document DB vs SQL DB
- Popular Document DBs
- MongoDB basics
- Data format and Key methods
- MongoDB data management

TOOLS/PLATFORMS COVERED

VERSION CONTROL WITH GIT

COURSE CODE	CDM-GIT-115	LECTURE HOURS	8 hrs.
PREREQUISITES	None	LEARNING HOURS	20 hrs.

MODULE 1

GIT INTRODUCTION

- Purpose of Version Control
- Popular Version control tools
- Git Distribution Version Control
- Terminologies
- Git Workflow
- Git Architecture

MODULE 2

GIT REPOSITORY and GitHub

- Git Repo Introduction
- Create New Repo with Init command
- Copying existing repo
- Git user and remote node
- Git Status and rebase
- Review Repo History
- GitHub Cloud Remote Repo

MODULE 3

COMMITS, PULL, FETCH AND PUSH

- Code commits
- Pull, Fetch and conflicts resolution
- Pushing to Remote Repo

MODULE 4

TAGGING, BRANCHING AND MERGING

- Organize code with branches
- Checkout branch
- Merge branches

MODULE 5

UNDOING CHANGES

- Editing Commits
- Commit command Amend flag
- Git reset and revert

MODULE 6

GIT WITH GITHUB AND BITBUCKET

- Creating GitHub Account
- Local and Remote Repo
- Collaborating with other developers
- Bitbucket Git account

TOOLS/PLATFORMS COVERED

BIG DATA FOUNDATION

COURSE CODE	CDM-BDF-117	LECTURE HOURS	8 hrs.
PREREQUISITES	Python Foundation	LEARNING HOURS	20 hrs.

MODULE 1

BIG DATA INTRODUCTION

- Big Data Overview
- Five Vs of Big Data
- What is Big Data and Hadoop
- Introduction to Hadoop
- Components of Hadoop Ecosystem
- Big Data Analytics Introduction

MODULE 2

HDFS AND MAP REDUCE

- HDFS – Big Data Storage
- Distributed Processing with Map Reduce
- Mapping and reducing stages concepts
- Key Terms: Output Format, Partitioners, Combiners, Shuffle, and Sort
- Hands-on Map Reduce task

MODULE 3

PYSPARK FOUNDATION

- PySpark Introduction
- Spark Configuration
- Resilient distributed datasets (RDD)
- Working with RDDs in PySpark
- Aggregating Data with Pair RDDs

MODULE 4

SPARK SQL and HADOOP HIVE

- Introducing Spark SQL
- Spark SQL vs Hadoop Hive
- Working with Spark SQL Query Language

MODULE 5

MACHINE LEARNING WITH SPARK ML

- Introduction to MLlib
  Various ML algorithms supported by MLib
- ML model with Spark ML.
- Linear regression
- logistic regression
- Random forest

MODULE 6

KAFKA and Spark

- Kafka architecture
- Kafka workflow
- Configuring Kafka cluster
- Operations

TOOLS/PLATFORMS COVERED

CERTIFIED BI ANALYST

COURSE CODE	CDM-BIA-119	LECTURE HOURS	8 hrs.
PREREQUISITES	None	LEARNING HOURS	20 hrs.

MODULE 1

BUSINESS INTELLIGENCE INTRODUCTION

- What Is Business Intelligence (BI)?
- What Bi Is The Core Of Business Decisions?
- BI Evolution
- Business Intelligence Vs Business Analytics
- Data Driven Decisions With Bi Tools
- The Crisp-Dm Methodology

MODULE 2

BI WITH TABLEAU: INTRODUCTION

- The Tableau Interface
- Tableau Workbook, Sheets And Dashboards
- Filter Shelf, Rows And Columns
- Dimensions And Measures
- Distributing And Publishing

MODULE 3

TABLEAU: CONNECTING TO DATA SOURCE

- Connecting To Data File , Database Servers
- Managing Fields
- Managing Extracts
- Saving And Publishing Data Sources
- Data Prep With Text And Excel Files
- Join Types With Union
- Cross-Database Joins
- Data Blending
- Connecting To Pdfs

MODULE 4

TABLEAU : BUSINESS INSIGHTS

- Getting Started With Visual Analytics
- Drill Down And Hierarchies
- Sorting & Grouping
- Creating And Working Sets
- Using The Filter Shelf
- Interactive Filters
- Parameters
- The Formatting Pane
- Trend Lines & Reference Lines
- Forecasting
- Clustering

MODULE 5

DASHBOARDS, STORIES AND PAGES

- Dashboards And Stories Introduction
- Building A Dashboard
- Dashboard Objects
- Dashboard Formatting
- Dashboard Interactivity Using Actions
- Story Points
- Animation With Pages

MODULE 6

BI WITH POWER-BI

- Power BI basics
- Basics Visualizations
- Business Insights with Power BI

TOOLS/PLATFORMS COVERED

ARTIFICIAL INTELLIGENCE FOUNDATION

COURSE CODE	CDM-AIF-128	LECTURE HOURS	8 hrs.
PREREQUISITES	Python Foundation, DSF	LEARNING HOURS	20 hrs.

MODULE 1

ARTIFICIAL INTELLIGENCE OVERVIEW

- Evolution Of Human Intelligence
- What Is Artificial Intelligence?
- History Of Artificial Intelligence.
- Why Artificial Intelligence Now?
- Ai Terminologies
- Areas Of Artificial Intelligence
- Ai Vs Data Science Vs Machine Learning

MODULE 2

DEEP LEARNING INTRODUCTION

- Deep Neural Network
- Machine Learning vs Deep Learning
- Feature Learning in Deep Networks
- Applications of Deep Learning Networks

MODULE 3

TENSORFLOW FOUNDATION

- TensorFlow Installation and setup
- TensorFlow Structure and Modules
- Hands-On: ML modeling with TensorFlow

MODULE 4

COMPUTER VISION INTRODUCTION

- Image Basics
- Convolution Neural Network (CNN)
- Image Classification with CNN
- Hands-On: Cat vs Dogs Classification with CNN Network

MODULE 5

NATURAL LANGUAGE PROCESSING (NLP)

- NLP Introduction
- Bag of Words Models
- Word Embedding
- Language Modeling
- Hands-On: BERT Algorithm

MODULE 6

AI ETHICAL ISSUES AND CONCERNS

- Issues And Concerns Around Ai
- Ai And Ethical Concerns
- Ai And Bias
- Ai: Ethics, Bias, And Trust

TOOLS/PLATFORMS COVERED

ARTIFICIAL INTELLIGENCE(AI) EXPERT

COURSE CODE	CDM-AIE-124	LECTURE HOURS	32 hrs.
PREREQUISITES	ML knowledge, Python	LEARNING HOURS	80 hrs.

MODULE 1

NEURAL NETWORKS

- Structure of neural networks
- Neural network - core concepts
- Feed forward algorithm
- Backpropagation
- Building neural network from scratch using Numpy.

MODULE 2

IMPLEMENTING DEEP NEURAL NETWORKS

- Introduction to neural networks with tf2.X
- Simple deep learning model in Keras (tf2.X)
- Building neural network model in TF2.0 for MNIST dataset

MODULE 3

DEEP COMPUTER VISION - CNN

- Convolutional neural networks (CNNs)
- Introduction
- CNNs with Keras
- Transfer learning in CNN
- Style transfer
- Flowers dataset with tf2.X
- Examining x-ray with CNN model

MODULE 3

RECURRENT NEURAL NETWORK

- RNN introduction
- Sequences with RNNs
- Long short-term memory networks
- LSTM RNNs and GRU
- Examples of RNN applications

MODULE 4

NATURAL LANGUAGE PROCESSING (NLP)

- Natural language processing
- Introduction
- NLP with RNNs
- Creating model
- Transformers and BERT
- State of art NLP and projects

MODULE 5

REINFORCEMENT LEARNING

- Markov decision process
- Fundamental equations in RL
- Model-based method
- Dynamic programming model free methods

MODULE 5

DEEP REINFORCEMENT LEARNING

- Architectures of deep Q learning
- Deep Q learning
- Policy gradient methods

MODULE 5

GENERATIVE ADVERSARIAL NETWORK (GAN)

- Gan introduction
- Core concepts of GAN
- Building GAN model with TensorFlow 2.X
- GAN applications

MODULE 5

DEPLOYING DL MODELS IN THE CLOUD (AWS)

- Amazon web services (AWS)
- AWS SageMaker Overview
- Sage Makers from Data pipeline to deployments
- Deploying deep learning models WS Sage maker

TOOLS/PLATFORMS COVERED

TensorFlow aws Amazon SageMaker

CONTACTS & ADMISSION

AI Engineer – PROGRAM ENQUIRY

DURATION : **9** MONTHS
LEARNING MODE : LIVE ONLINE / IN-PERSON CLASSROOM (SELECTED CITIES)

24x7 live chat @ www.datamites.com | admissions@datamites.com

INDIA :+91 1800-313-3434 | US: +1 628 228 6062 | UK: +44 752 066 5626

8 HRS/WEEK
SELF LEARNING

+

8 HRS/WEEK
INSTRUCTOR LED LIVE ONLINE LEARNING

+

4 HRS/WEEK
PROJECTS & ASSESSMENTS

20 HOURS A WEEK COMMIMENT

AI IS A RATED AS **THE TOP 5 CAREER CHOICE**
HIGHEST PAID – RECESSION PROOF – MILLIONS OF JOBS

TAKE YOUR FIRST STEP TOWARDS AI CAREER

ENQUIRE NOW