IntelliBI
Innovations Technologies

DATA SCIENCE

Driving Excellence:

Your BI and AI Journey Starts Here!

Data Science & Gen-AI

www.intellibiinnovationstechnologies.in

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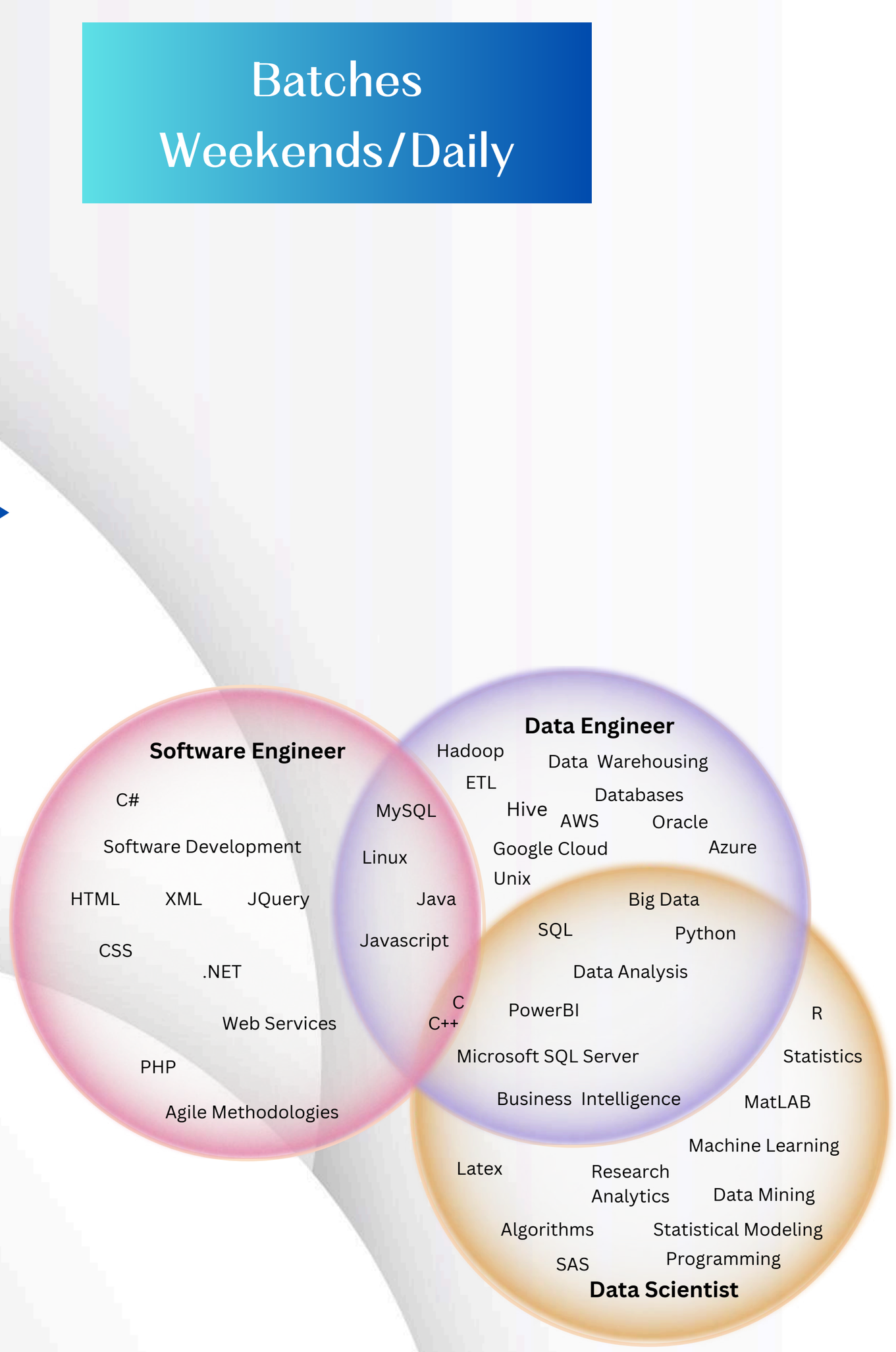
Course Duration
6 Months

Mode
Online(Zoom)

Batches
Weekends/Daily

Skills And Qualifications



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SQL Curriculum

Introduction

SQL Type

- DDL
- DML
- TCL
- DCL
- DQL

Constraints

- Primary Key
- Unique
- Foreign Key
- Check
- Default
- NOT Null

Clause

- DISTINCT
- WHERE
- ORDER BY
- GROUP BY
- HAVING

Operators

- IS NULL
- LIKE
- BETWEEN
- IN

Functions

- String
- Date
- Numeric
- Conversion
- Aggregate

Joins

- Inner Join
- Left Outer Join
- Right Outer Join
- Full Outer Join
- Cross Join
- Self Join

Set Operator

- Union All
- Union
- Intersect
- Minus

Analytical Functions

- RANK
- DENSE_RANK
- ROW_NUMBER
- FIRST_VALUE,
- LAST_VALUE
- LAG
- LEAD

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Python Curriculum

Python

- Setup Python
- "Hello world"
- Datatypes-Numbers, Strings, Boolean
- String Functions: Indexing, Slicing
- Print Formating with Strings
- Variables
- Operators
- List
- Dictionary
- Tuples
- Sets in Python
- If, Elif and Else
- For Loops
- While Loops (including break and continue, Pass)
- Functions and Recursions
- Local and Global variable
- Error and Exception Handling

Pandas And Numpy

- Create Pandas DataFrame
- Numpy Array Operations
- Pandas DataFrame Operations

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Machine Learning Curriculum

Supervised

- MLE, MAP, Confidence Interval
- Classification Metrics
- Imbalanced Data
- Decision Trees
- Bagging
- Naive Bayes
- SVM

Unsupervised

- Introduction to Clustering, k-Means
- K-means ++, Hierarchical
- GMM
- Anomaly/Outlier/Novelty Detection
- PCA, t-SNE
- Recommender Systems
- Time Series Analysis

Algorithms

- Random forest
- XGboost

Math for Machine Learning

- Classification
- Optimization
- Gradient descent
- Principal Component Analysis

Neural Networks and Machine Learning

- Introduction to Classical Machine Learning
- Linear Regression
- Polynomial, Bias-Variance, Regularisation
- Cross Validation
- Logistic Regression-2
- Perceptron and Softmax Classification
- Introduction to Clustering, K-Means
- K-means ++, Hierarchical

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Deep Learning Curriculum

Neural Networks

- MLE, MAP, Confidence Interval
- Classification Metrics
- Imbalanced Data
- Decision Trees
- Bagging
- Naive Bayes
- SVMPerceptrons
- Neural Networks
- Hidden Layers
- Tensorflow
- Keras
- Forward and Back Propagation
- Multilayer Perceptrons (MLP)
- Callbacks
- Tensorboard
- Optimization
- Hyperparameter tuning

Computer Vision

- Convolutional Neural Nets
- Data Augmentation
- Transfer Learning
- CNN
- CNN Hyperparameters Tuning & BackPropagation

Natural Language Processing

- Text Processing and Representation
- Tokenization,Stemming, Lemmatization
- Vector space modelling, Cosine Similarity, Euclidean Distance
- POS tagging, Dependency parsing
- Topic Modeling, Language Modeling
- Embeddings
- Recurrent Neural Nets
- Information Extraction
- LSTM
- Attention
- Named Entity Recognition

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Power BI Desktop

Introduction

- Installation
- Workflow
- Comparision of Power BI Vs Excel and Power BI vs Tableau etc.
- how Power BI become Popular?
- Overview
- Architecture
- What is BI?
- BI Architecture Flow

Connecting & Shaping Data

- Connecting to source data
- shaping and transforming
- Merge Queries
- Append Queries
- date related transformations
- Column related transformations
- M Query overview
- Advanced editor
- Duplicate
- Reference
- Creating static and dynamic parameters
- Data profiling

Creating a Data Model

- Building relational models
- Creating table relationships
- Understanding cardinality
- Exploring filter flow
- create start schema
- Snowflake Schema From Flat Schema
- Role Playing Dimension

Visualizing Data with Reports

- Inserting charts and visuals
- customizing formats
- editing,
- conditional formatting,
- selection of right visuals as per data,
- interactions,
- applying filters and bookmarks, etc.
- Page Navigation,
- URL Configuration,
- Inserting buttons, images,
- sorting of columns,
- creating hierarchy, create groups

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Power BI Service

Reports & Dashboards

- Create reports & dashboards
- Explore Tools

1. Data driven alerts
2. Q&A
3. Quick insights

Generative AI

- Using Azure OpenAI Chat completion
- RAG approach using python
- OpenAI

Sharing & Collaboration

- Share workspaces & collaborate with your team
- Publish apps
- Publish to web

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Our Alumni Work in Top Companies

accenture
HDFC BANK
We understand your world
HSBC
ICICI Bank
IndusInd Bank
wipro
TCS | TATA CONSULTANCY SERVICES
Hindustan Unilever Limited
Capgemini
ITC Limited
KPMG
pwc

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