AGILE IT TECH

DATA ANALYST COUR S E

CURRICULUM

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COURSE FEATURES :

1. **Course Duration:** 6-8 Weeks (35 Hours approx.)
2. **Category:** Databases, Predictive Analysis
3. **Available Modes:** Online (Batch or One on One)
4. **Certificate:** Yes
5. **Location:** Online - Live Sessions
6. **Language:** English
7. **Sessions:** Weekday and Weekend
8. **Viewers:** 3069
9. **Prerequisites:** No
10. **Skill Level:** Beginner
11. **Course Capacity:** 20
12. **Start Course:** To be announced

Description :

Most entry-level data analyst positions require appetite for data. Effective data analysis helps organizations make business decisions. Nowadays, data is collected by businesses constantly: through surveys, online monitoring, online marketing analyses, collected subscription and registration data (e.g. newsletters), social media monitoring, among other things. Through hands -on projects, students will learn how to apply these techniques to real -world data sets and gain the skills necessary to make data-driven decisions. The course is suitable for beginners who are interested in pursuing a career in data analytics or for professionals looking to enhance their data analysis skills. By the end of the course, students will have a solid foundation in data analytics and be able to use these skills to inform business decisions.

Course Content:

• Introduction to Python & ML
• Use of ML and Python in Software Industry

1.Introduction
• Perspective of Python
• Class & Objects
• Installing Anaconda
• Keywords
• Identifiers
• Datatype

2.Operation & Control Flow
• Arithmetic Operators
• Increment or Decrement Operator
• Relational Operators
• Equality Operators
• Logical operators
• Assignment Operators
• Lambda

3.Data handling and Visualization
• NumPy • Pandas • Matplotlib

4.Linear Algebra
• Point
• Line
• Plane
•Hyper Plane
• Geometric Shape as a classifier

5.Distance
- Euclidian
- Angular
- Directed
- Cosine

6.Statistics
- Mean
- Median
- Mode
- Population and Sample
- Gaussian Distribution
- CDF & PDF
- Confidence Interval
- Chebyshev's inequality
- Co-Variance
- Pearson Correlation Coefficient
- Spearman Rank Correlation Coefficient

7.PCA
- Why PCA
- Eigen Value and Eigen Vector
- MNIST dataset Visualization

8.Linear Regression
- Model (Price Prediction)
- Logistic Regression

9.Optimization Techniques

- Gradient Descent
- Stochastic gradient descent
- Ada Boosting

10.KNN
• KNN
• Geometric Meaning of KNN
• Model (Flower Species Dataset)
• Various Conditions and How to handle the situation

11.Naive Bayes algorithm
• Math behind the Naïve Bayes
• Model (Flower Species Dataset)

12.Decision Tree
• Decision Tree and Decision Forest
• How Decision Tree work
• Model

13.Unsupervised Learning
• What is Unsupervised Learning

14.K Means
• K Means
• K Means ++

15.dB-scan
• DB scan
• Math and logic behind DB-scan
• Implementation area in industries

16.Algometric Clustering
• Algometric Clustering

17.Collaborative Filtering
• Collaborative Filtering

18.Excel
• Excel Formulas
• Advance Formulas like VLOOKUP, index match
• Play with Chart
• Optimization in Excel

19.Power BI
• Data Types
 • Chart
 • Auto Filtering
• if else condition
 • Adding columns
• Data Modeling
• DAX
• Dashboard Formatting

20.SQL
• SQL Syntax
• SQL Data Types
• SQL Operators
• SQL Expressions
• SQL Clauses
• SQL Queries and Subqueries
• SQL Joins
• String Handling
• Report Automation using python and SqlvaiGmail(Automatic report generation and delivery).
• Practice exercise on Hacker rank With one Live Project

Thank You