

Data Scientist Roadmap

Data Scientist Banne Ka Roadmap: Ek Hinglish Guide

Yeh roadmap aapko Data Scientist banne mein madad karega. Isko step-by-step follow karo aur apna career boost karo!

Phase 1: Foundational Skills (Week 1-4) - Basic Shiksha

Week 1-2: Maths aur Programming ki Taiyari:

Topic: Linear Algebra, Calculus (basics), Probability & Statistics, Python Programming (loops, conditions, functions).

Resources:

Khan Academy: Free aur amazing resources for maths aur stats.

Codecademy/DataCamp: Interactive Python learning. Udemy pe bhi bohot saare beginner level Python courses mil jaayenge.

Week 3-4: Data Manipulation aur Visualization:

Topic: Pandas (Data cleaning, manipulation), NumPy (numerical computing), Matplotlib & Seaborn (data visualization).

Resources:

Pandas Documentation: Official docs best hote hain.

Sentdex (YouTube): Python aur data science ke liye ek amazing YouTube channel.

Phase 2: Intermediate Skills (Week 5-8) - Kuchh Zyada Deep Mein

Week 5-6: Machine Learning Algorithms:

Topic: Regression (Linear, Logistic), Classification (Decision Trees, SVM, Naive Bayes), Model Evaluation Metrics (Accuracy, Precision, Recall).

Resources:

Andrew Ng's Machine Learning Course (Coursera): Ek classic course jo sabko recommend kiya jata hai.

StatQuest with Josh Starmer (YouTube): Boht achi tarah se machine learning concepts samjhaate hain.

Week 7-8: Data Preprocessing aur Feature Engineering:

Topic: Handling missing values, outlier detection, feature scaling, one-hot encoding, feature selection.

Resources:

Kaggle Learn: Kaggle pe bohot saare free courses aur tutorials mil jaayenge.

Towards Data Science (Medium): Data science articles aur tutorials ka ek acha source.

Phase 3: Advanced Topics (Week 9-12) - Expert Banne Ki Tayyari

Week 9-10: Deep Learning Basics:

Topic: Neural Networks, Backpropagation, TensorFlow/PyTorch basics.

Resources:

fast.ai: Deep learning ko easily sikhaate hain.

3Blue1Brown (YouTube): Neural networks ka visual explanation dekhne ke liye.

Week 11-12: Big Data Technologies aur Cloud Computing:

Topic: Spark, Hadoop (basics), AWS/Google Cloud/Azure (basic familiarity).

Resources:

Databricks Tutorials: Spark sikhne ke liye.

Cloud Provider Documentation: AWS, GCP, aur Azure ki official documentation check karo.

Phase 4: Project Building (Week 13-16) - Apna Portfolio Banayo!

Week 13-16: Real-World Projects:

Topic: Choose 2-3 projects based on your interests (e.g., customer churn prediction, image classification, recommendation system). Use Kaggle datasets for practice. GitHub pe apna code upload karo.

Resources:

Kaggle: Data science competitions aur datasets ka ek bada platform.

GitHub: Apna code aur projects share karne ke liye.

Important Tips:

Consistency is key: Roz thoda thoda padhai karo.

Practice regularly: Coding practice bohot zaroori hai.

Networking: Other data scientists se connect karo.

Build a strong portfolio: Apne projects ko showcase karo.

Yeh roadmap sirf ek guideline hai. Apni learning style aur interests ke hisab se adjust karo. All the best!

Data science ki duniya mein aapka swagat hai!