



DATA



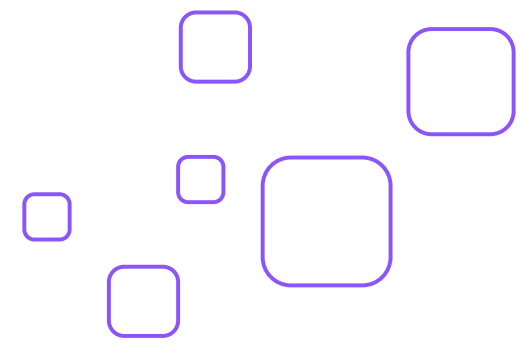
SHEF
SOLUTIONS.LLC

SCIENCE + AI

FULL COURSE 2024 / 2025

Overview

At **Shef Solutions llc.**, we understand the power of data. In today's rapidly evolving world, data-driven decisions are the key to success. That's why we are excited to introduce our Executive Post Graduation Certification in Data Science and AI – your gateway to a dynamic career in the world of data analytics and artificial intelligence.



DEEPANSHU CHAUDHARY

CEO Company

Deepanshu Chaudhary is the proud founder and sole stockholder of Shef Solutions LLC. With a vision for excellence and a commitment to delivering top-tier services, Deepanshu has been instrumental in shaping our company's journey since its inception.

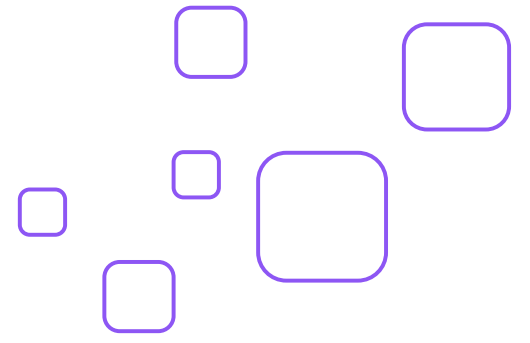
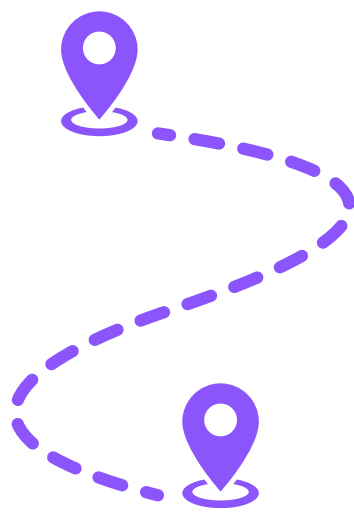
Deepanshu Chaudhary

CEO Company

COURSE HIGHLIGHT

- 100 Hrs of Applied Learning.
- 25 weeks of Self-paced Learning
Learn from Highly Experienced Faculty and Industry Practitioners.
- 50+ Industry Projects & Case Studies
Designed for Working Professionals and Freshers.
- 24*7 Support Dedicated Learning Management Team.
- Industry Expert Mentorship
- One-on-one with Industry Mentors
- Guaranteed Job Interviews upon movement
- Shef Solutions Inc. in House Placement Department

Roadmap



Week 1-2

Introduction to Data Science and Python Programming

- ✓ Introduction to Data Science
- ✓ Overview of Python Programming Language
- ✓ Data Types, Variables, and Operators in Python
- ✓ Control Structures (Loops, Conditionals) in Python
- ✓ Functions and Modules in Python
- ✓ Introduction to NumPy and Pandas Libraries for Data Manipulation
- ✓ Hands-on Lab: Basic data analysis and manipulation using Python and NumPy/Pandas

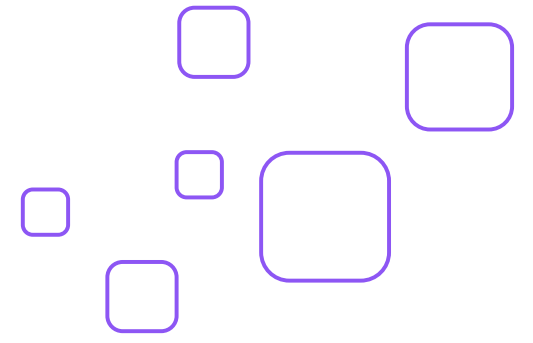
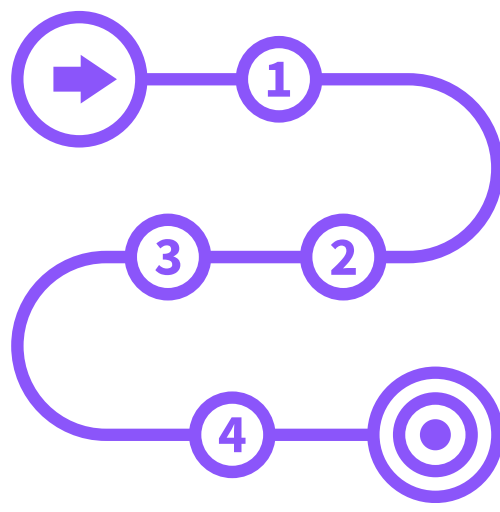


Week 3-4

Data Visualization and Exploratory Data Analysis (EDA)



- Data Visualization Principles and Best Practices ✓
- Introduction to Matplotlib and Seaborn Libraries ✓
- Exploratory Data Analysis (EDA) Techniques ✓
- Statistical Analysis and Summary Statistics ✓
- Data Cleaning and Preprocessing ✓
- Hands-on Lab: Exploring datasets through data visualization and EDA ✓



Week 5-6

Machine Learning Fundamentals

- ✓ Introduction to Machine Learning
- ✓ Supervised Learning: Regression and Classification
- ✓ Clustering and Dimensionality Reduction
- ✓ Model Evaluation and Validation Techniques
- ✓ Overfitting, Underfitting, and Bias-Variance Tradeoffs
- ✓ Implementing machine learning algorithms for predictive modelling tasks

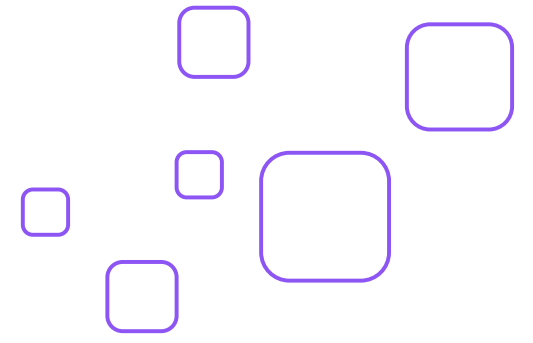
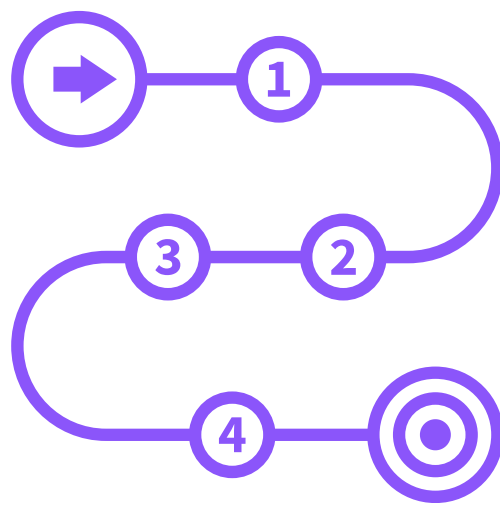


Week 7-8

Advanced Machine Learning Techniques



- Ensemble Learning: Bagging, Boosting, and Stacking ✓
- Feature Engineering and Feature Selection ✓
- Hyperparameter Tuning and Optimization ✓
- Introduction to Neural Networks and Deep Learning ✓
- Introduction to TensorFlow and Keras Libraries ✓
- Hands-on Lab: Building and training neural networks for classification tasks ✓



Week 09-10

Natural Language Processing (NLP) and Text Mining

- ✓ Introduction to Natural Language Processing (NLP)
- ✓ Text Preprocessing Techniques
- ✓ Sentiment Analysis and Opinion Mining
- ✓ Text Classification and Topic Modeling
- ✓ Named Entity Recognition (NER) and Text Summarization
- ✓ Hands-on Lab: Analyzing and processing text data using NLP techniques.

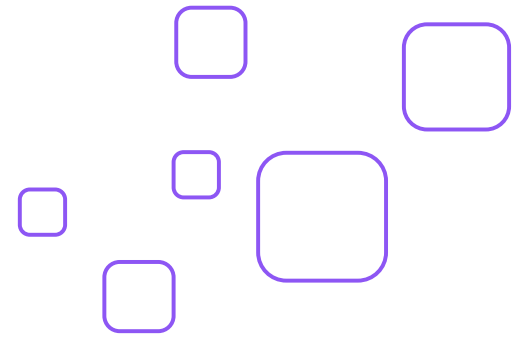
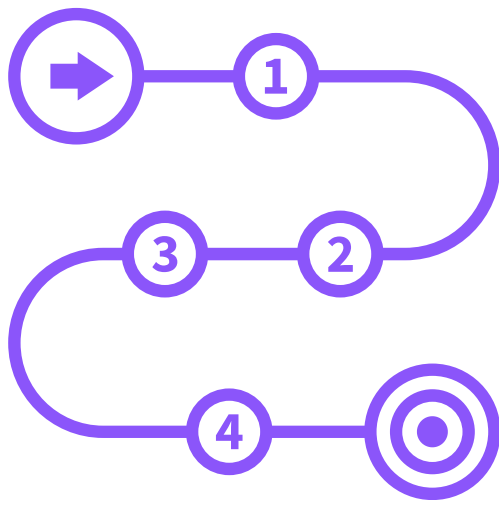


Week 11-12

Data Engineering and Big Data Technologies



- Introduction to Data Engineering ✓
- Data Collection and Acquisition Techniques ✓
- Data Transformation and Cleaning Pipelines ✓
- Introduction to Big Data Technologies (Hadoop, Spark) ✓
- Processing and Analyzing Big Data with Spark ✓
- Implementing data engineering pipelines and processing big data with Spark ✓



Week 13-14

Advanced Topics in Data Science

- ✓ Time Series Analysis and Forecasting
- ✓ Introduction to Recommendation Systems
- ✓ Reinforcement Learning Basics and Applications
- ✓ Anomaly Detection and Outlier Analysis
- ✓ Introduction to Computer Vision and Image Processing
- ✓ Hands-on Lab: Building recommendation systems and performing time series analysis

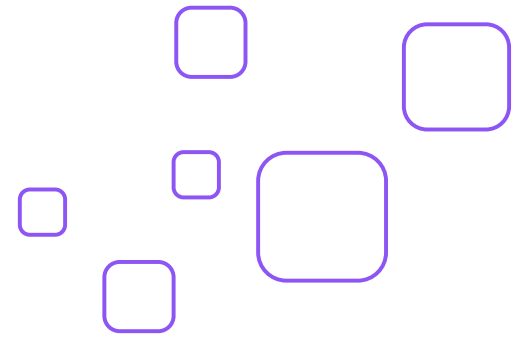
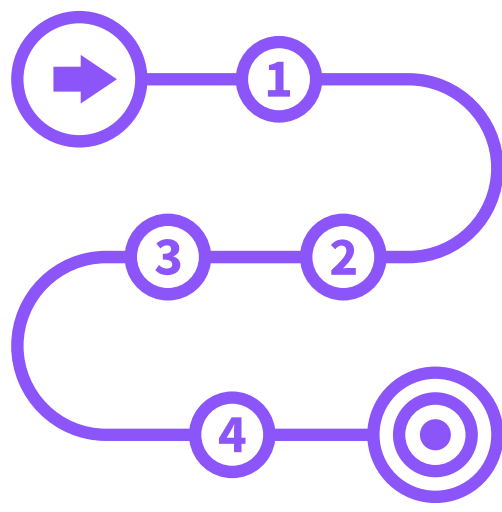


Week 15-16

Introduction to Artificial Intelligence (AI)



- Introduction to Artificial Intelligence (AI) ✓
- Overview of Machine Learning and Deep Learning ✓
 - Ethics and Bias in AI ✓
- AI Applications in Healthcare, Finance, and other industries ✓
- Future Trends and Challenges in AI ✓
- Hands-on Lab: Building AI models and exploring AI applications ✓



Week 17-18

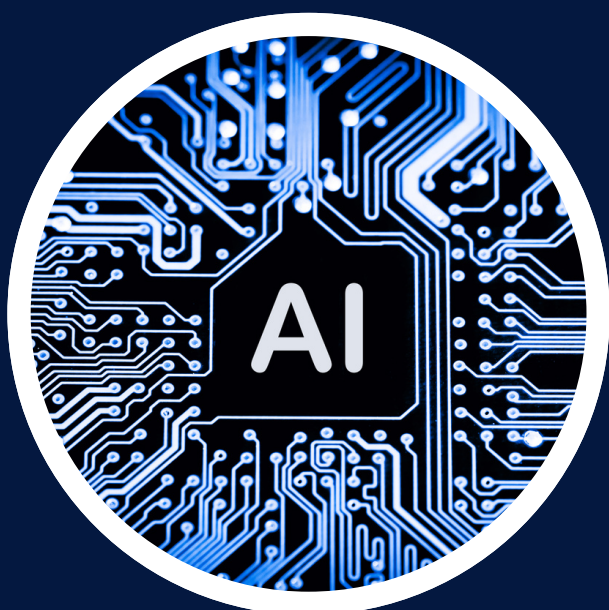
Deep Learning and Neural Networks

- ✓ Convolutional Neural Networks for Image Classification
- ✓ Recurrent Neural Networks for Sequence Modeling
- ✓ Introduction to Generative Adversarial Networks
- ✓ Transfer Learning and Fine-Tuning Pretrained Models
- ✓ Building deep learning models for image classification and sequence modelling tasks

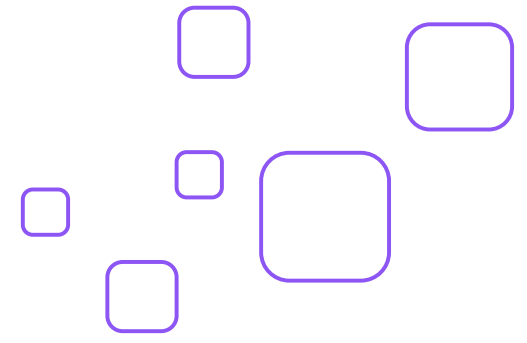
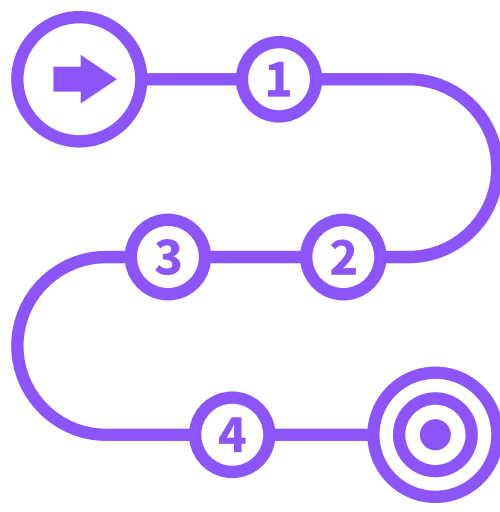


Week 19-20

Reinforcement Learning and AI Applications



- Introduction to Reinforcement Learning ✓
- Markov Decision Processes (MDPs) and RL Framework ✓
- Deep Reinforcement Learning with Deep Q-Networks ✓
- AI Applications in Autonomous Systems and Robotics ✓
- Hands-on Lab: Implementing reinforcement learning algorithms for control tasks ✓



Week 21-22

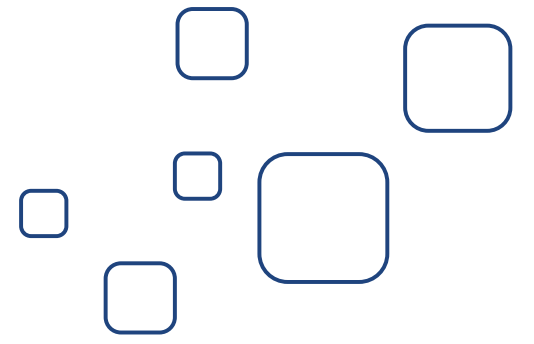
AI Ethics and Responsible AI

- ✓ Ethical Considerations in AI Development and Deployment
- ✓ Bias and Fairness in AI Algorithms
- ✓ Privacy and Security Concerns in AI Systems
- ✓ AI Regulation and Policy
- ✓ Responsible AI Practices and Guidelines
- ✓ Assessing and mitigating bias in AI models



Week 23-24 Capstone Project and Final Assessment

- Capstone Project Development ✓
- Project Documentation and Presentation Preparation ✓
- Final Assessment and Project Presentation ✓
- Course Review and Feedback Session ✓



Explore, Learn, and Master New Skills from Anywhere

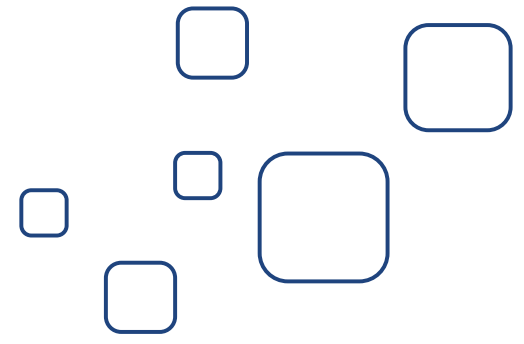
At **Shef Solutions LLC**, we believe in empowering learners like you to achieve your career aspirations faster and more effectively with Shef Solutions llc. With comprehensive programs and certifications, you'll gain the knowledge and expertise needed to thrive in the digital era.

- ✓ **Project Experience**
- ✓ **100% Job Assistance**
- ✓ **Top Instructors**
- ✓ **Limited students batch**



Our Corporate Clients





More Information For DATA SCIENCE+AI ?

Contact Us!

We're Always Eager to Hear From You!

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Thank You!

