

## AI/ML Upskilling Journeys For Your Staff



Define Goals & Use Cases

Building a Skillset Team Data Collection & Preparation

Infrastructure & Tools

Model
Development
& Planning

Model Evaluation & Refinement

Integration & Deployment

Monitoring & Maintenance

Specialized Advanced Topics



Data Scientist



ML Engineer



Software Engineer

# Defining & Scoping Data Science Projects

Topics Include:
translate
business
problems to data
science tasks,
scoping the
project, data
flow, creating
and executing
project plan

## Data Science Job Roles

Topics Include:
understanding of
the Data
Scientist, Data
Engineer,
Machine Learning
Engineer, Data
Analyst, Al
Engineer and
DevOps and
Architectroles in
data related
work

## Data Engineering, ETL & DataOps

Topics Include: Apache Spark, Pandas, Seaborn, DataOps pipelines and environment management

## Applied Data Science & Practical Machine Learning (Data Scientist-specific customization)

Topics Include:

data science life cycle, SageMaker, training/evaluating/deploying ML models, AWS AutoML and auto-sklearn environment, H2O, neural networks and deep learning

## Data Science using Python

Topics Include:
Jupyter Notebook,
NumPy, Pandas and
Data Visualization
in Python, data
repairing/normalizi
ng/splitting, scikitlearn, Random
Forest and The
k-Means Algorithm

#### **Neural Networks**

Topics Include:

Machine Learning, Model, Feature Engineering, Tensorflow and Keras, Best Practices and Natural Language Processing (NLP)

## Defining Acceptance Criteria for ML

Topics Include:
machine learning
for product
managers, defining
business
objectives,
prioritizing
requirements in
machine learning
projects, best
practices

## Generative Al Engineering

Topics Include: LLM's, fie tuning LLM's, integrating LLM in software and data engineering tools, chatbot, case studies and realworld applications

#### API Management Fundamentals

Topics Include: Mule Soft Anypoint Studio, Monolith vs Microservices Design, AWS API Gateway, Azure API management

## Tools for Monitoring AI/ML

Topics Include: Key Metrics, Monitoring for quality and security, model drift, regulations



## AI/ML Upskilling Journeys For Your Staff



Define Goals & **Use Cases** 

Defining &

Scoping

Data

Science

**Projects** 

Topics Include:

translate

business

problems to data

science tasks,

scoping the project, data

flow, creating and executing

project plan

Building a Skillset Team

**Data** 

Data Collection & Preparation

Infrastructure & Tools

Model Development & Planning

Model Evaluation & Refinement

Integration & Deployment

Monitoring & Maintenance Specialized Advanced **Topics** 



Data Engineer



**DevOps** & Architect



**Analyst** 



Manager

## Science **Job Roles**

the Data Scientist, Data Engineer, Machine Learning Analyst, Al **Engineer** and DevOps and data related work

Topics Include: understanding of Engineer, Data Architect roles in

## Data Engineering, ETL & **DataOps**

Topics Include: Apache Spark, Pandas, Seaborn, pipelines and environment management

## Applied Data Science & Practical Machine Learning (Data Scientist-specific customization)

Topics Include:

data science life cycle, SageMaker, training/evaluating/deploying ML models, AWS AutoML and auto-sklearn environment, H2O, neural networks and deep learning

## **Tools for Monitoring** AI/ML

Topics Include: key metrics. monitoring for quality and security, model drift, regulations

## Tableau/ Power BI & DataOps

## Seminar on DS/ML **Trends**

**Topics Include:** evolution of data science, ML, major trends, case studies, current R&D and upcoming developments

#### Data Science using Python

Topics Include: NumPy, Pandas & Seaborn, data repairing/normalizing. scikit-learn algorithm

## **Defining** Acceptance Criteria for ML

Topics Include: machine learning for product managers, defining business objectives, prioritizing requirements in machine learning projects, best practices

## Leading AI/ML **Projects**

Topics Include: project lifecycle, tools & technologies case studies

## **Prompt Engineering: Techniques** & Best **Practices**

Topics Include: Al Language models and prompt engineering, restricting answers to your document corpus, generating data and images, language translation