## **CS CODENZ**

Learn Here , Lead Anywhere

## Internship – Data Analytics using Python for Machine Learning Syllabus

WEEK - 1
• Introduction
☐ • Syntax and Comments
□ · Variables
☐ • Data Types
□ · Operators
☐ Conditional Statements
☐ • Simple if
□ · If-else
□ • Elif
☐ Looping Statements
□ · While
□ · For
□ • Functions
☐ · Lambda Function
□ · Arrays
□ · Modules and Packages
☐ Python Collections
□ · List
□ · Tuple
□ · Set
□ · Dictionary
WEEK - 2
Numpy
☐ • What is NumPy
☐ • Why use NumPy
☐ • Why NumPy is Faster than List

☐ • Importing NumPy as Ailes		
☐ • Creating a Numpy & Dimensions		
☐ • NumPy array Indexing		
☐ • NumPy Array Slicing		
☐ • NumPy Array Shape		
☐ • Reshapping Array		
$\square$ • Spliting , Sorting , Filter.		
☐ • Array Functions		
Pandas		
<ul><li>Introduction</li></ul>		
☐ Pandas Package		
□ · Series		
☐ • Data Frames,Read CSV		
☐ • Read JSON,Data Ranking		
WEEK - 3		
Analyzing Data		
□ • Viewing Data		
☐ • Info About Data		
☐ • Data Munging		
☐ • Data Filtering		
☐ • Merging Data		
$\square$ • Aggregation		
☐ • Grouping Data		
Cleaning Data		
□ • Data Cleaning		
□ • Empty Cells		
□ · Wrong Format		
☐ • Wrong Data		
☐ • Remove Duplicates		
WEEK - 4		
Domain Knowledge		
☐ Problem Formulation		
☐ Data Collection		

☐ Data Preprocess	
☐ Modeling	
☐ Result Interpretation	
☐ Data Exploration	
□ Baselines	
□ Overfitting	
☐ Reproducibility	
☐ Interpretability	
☐ Casula Interface	
WEEK - 5	
Matplotlib	
☐ • Introduction	
☐ • Getting Started	
☐ • Plotting,Markers	
$\square$ • Lines,Labels,Grid	
$\square$ • Subplot,Scatter,Bars	
$\square$ • Histograms,Pie-Charts	CODENZ
☐ NumPy Random	CODENZ
$\square$ Introduction	
☐ Data Distribution	
$\square$ • Normal Distribution	
$\square$ • Uniform Distribution	
$\square$ • Logistic Distribution	

Note - Week 6 , Week 7 , Week 8 For Major Project

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