



# DATA SCIENCE

WITH  
**GEN AI**

“

Discover the power of data and the potential of AI. Join our Data Science with Generative AI course to master techniques that drive innovation, transforming raw data into predictive insights and creative solutions.

”



# ABOUT US

At TechU, we bridge the gap between academic learning and real-world application. By integrating theoretical education with hands-on project experience, we equip students with the essential skills and expertise needed to thrive in their chosen careers.

Corporate training

Cross functional teams

Valuable insights

Real-time projects

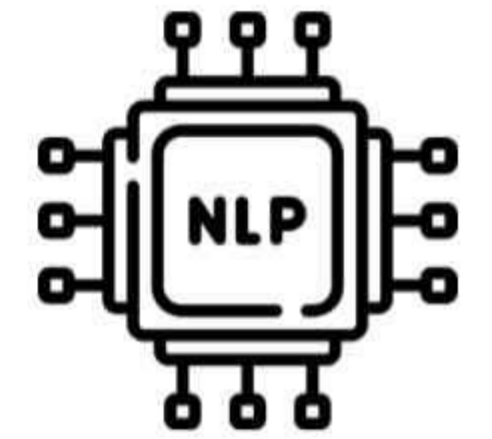
Professional guidance

Robust Portfolio

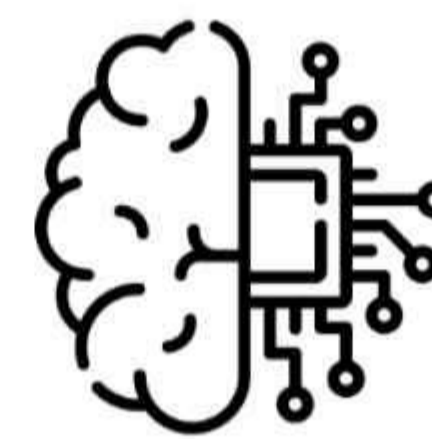
## SKILL SETS COVERED



DATA ANALYTICS/  
BUSINESS ANALYTICS



NATURAL LANGUAGE  
PROCESSING



MACHINE LEARNING  
ALGORITHMS



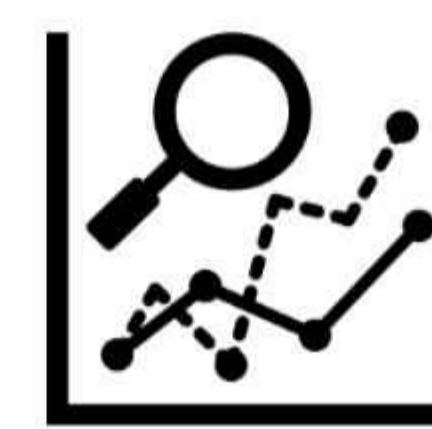
STATISTICS



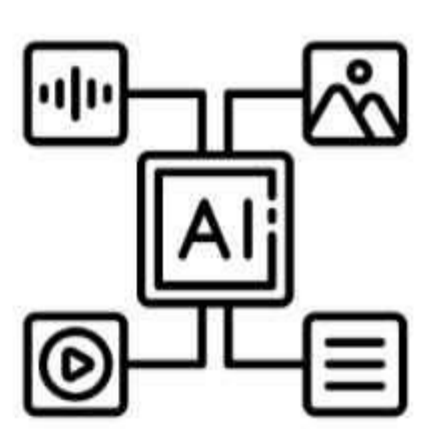
ENSEMBLE TECHNIQUES



DATA VISUALIZATION



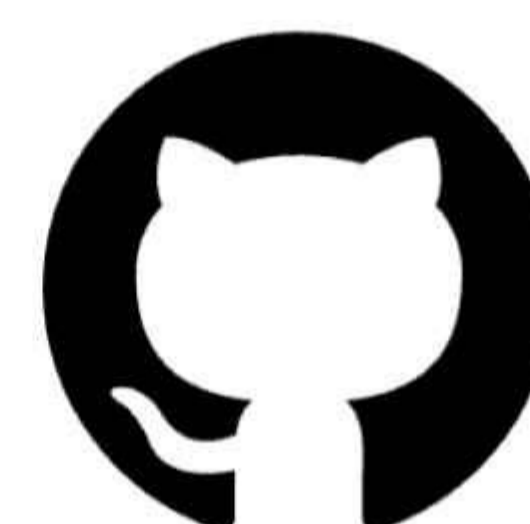
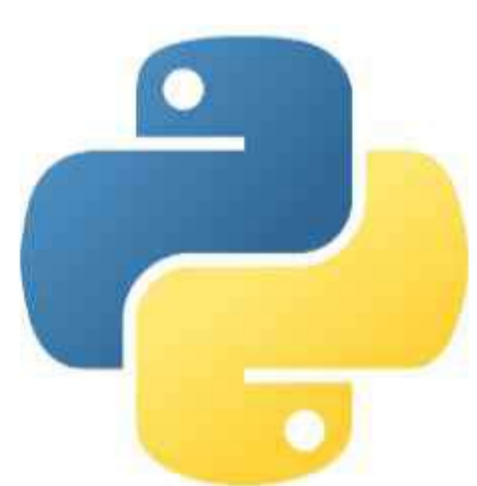
FORECASTING ANALYTICS



GENERATIVE AI



## TOOLS & TECHNOLOGIES YOU WILL LEARN





# Why Choose Us

What Makes TechU Different We Don't Just Teach. We Transform.  
From Beginner To Project-Ready — We Guide Every Step Of Your Journey.

## 500+

Student Enrolled

## 800+

Class Completed

## 10+

Top Instructors

## 450+

Positive Reviews

## 100%

Satisfaction Rate

## Benefits Beyond Learning



LINKEDIN PROFILE



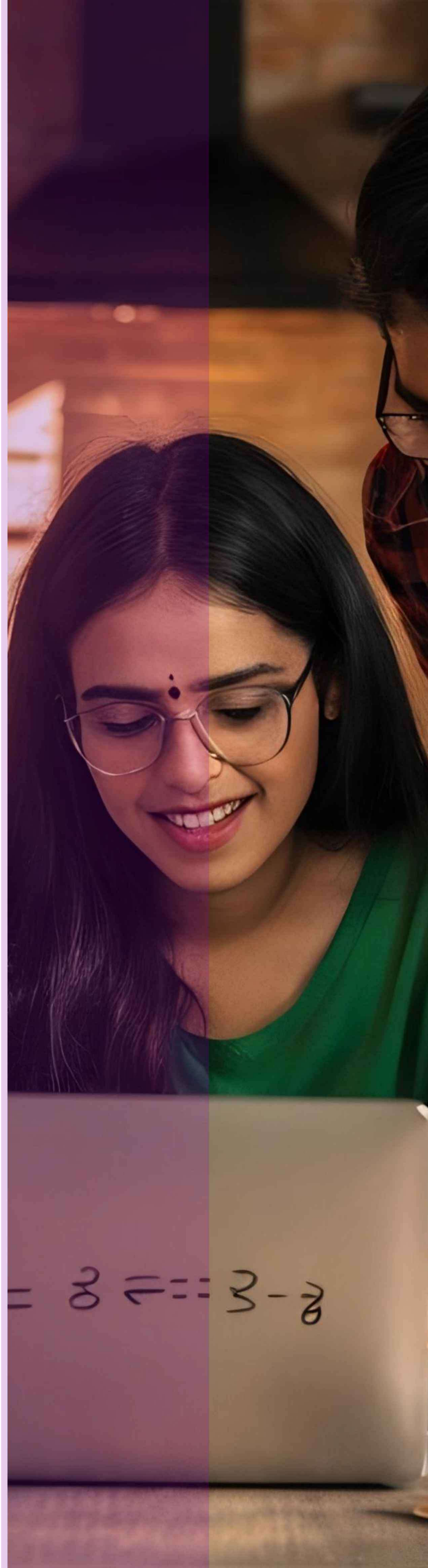
RESUME WRITING



SOFT SKILLS



INTERVIEW PREPARATION





## KEY HIGHLIGHTS

### CURRICULUM BACKED BY INDUSTRY EXPERTS

Get Trained With Content Curated By Professionals Who Understand Current Job Market Needs

### MENTORSHIP FROM WORKING PROFESSIONALS

Learn Directly From Experts Who Know What Companies Are Actually Looking For

### START AT YOUR LEVELS

Choose From Beginner Or Advanced Tracks Based On Your Current Skill Set — No Prior Experience Required

### BLENDED LEARNING MODEL

Enjoy The Flexibility Of Both Classroom Sessions And Interactive Online Learning

### PRACTICAL, PROJECT-BASED LEARNING

Gain Hands-On Experience Through Coding Assignments, Real-World Tools, And Simulations

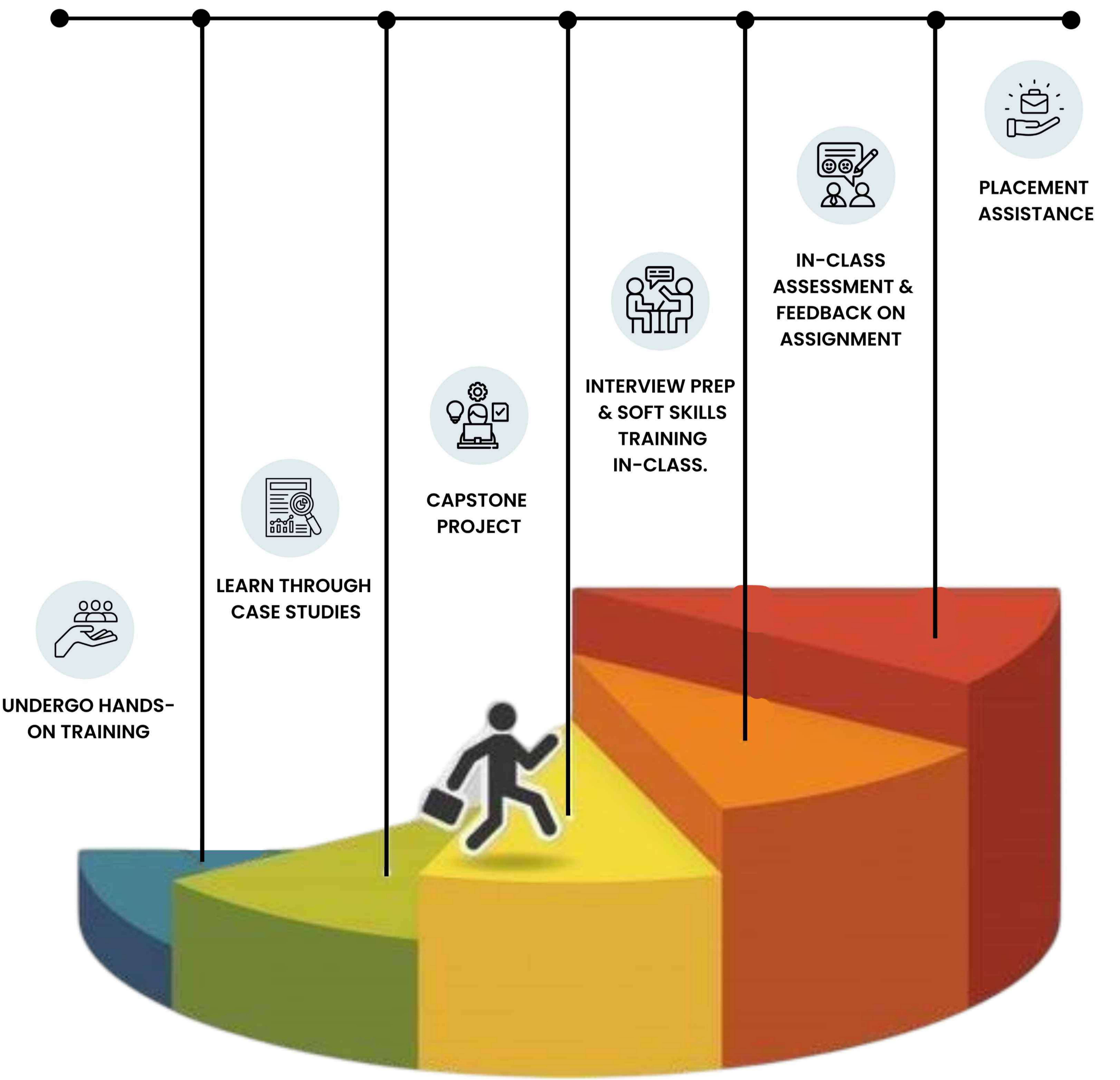
### REAL-WORLD READINESS

Work On Actual Case Studies And Apply Your Skills In Real-Time Industry Scenarios

### DEDICATED CAREER SUPPORT

From Resume Building To Mock Interviews And Internship Guidance — We've Got Your Back

# Learning Path



# MODE OF LEARNING

## CLASSROOM TRAINING



## ONLINE TRAINING



### Classroom + Online + Backup Access

At TechU, We Offer A Flexible Hybrid Learning Model That Allows Students To Attend Sessions Either In The Classroom Or Live Online From Anywhere

## Build A Career That's Globally Credible & Nationally Recognized

**TechU Innovations Lab Pvt. Ltd.** Proudly Holds Multiple Prestigious Recognitions To Ensure Top-Quality Education And Industry-Ready Training For Our Students.

**North Carolina Affiliated:** Internationally Aligned Curriculum Matching Global Education Standards.

**ISO Certified:** Processes And Training Methods Meet Globally Recognized Quality Standards.

**NSDC Partner:** Official Partnership With The National Skill Development Corporation (NSDC) For Industry-Relevant, Skill-Based Training And Job Placement Support.

**At TechU Innovations Lab Pvt. Ltd.,** These Accreditations Reflect Our Commitment To Delivering Trusted, Credible, And Impactful Education.

# **PREMIUM PROGRAM CURRICULUM**

# COURSE CONTENT

## Module 1

### Advanced Excel

- Data MAnipulations
- conditional statements
- Aggrigate functions
- charts and Plots.
- Fabrication of Dashboards
- Working with Lookups
- Macro's
- Goal Seek Analysis.
- Joins of tables

## Module 2

### Introduction to Python

- Program Introduction
- Operators
- Data Types

## Module 3

### LIST & TUPLE

- List Creation & Operations
- List Comprehensions, Slicing & Indexing
- Tuple Creations, Operations & Slicing & Indexing
- Practical Exercise: Implement List & Tuple to solve concise real-life problems.

# COURSE CONTENT

## Module 4

### DICTIONARY & SETS

- Dictionary creation, basic operations, manipulation & comprehensions
- Set Creation and Manipulations • Common Operations on Dictionary Sets and z
- Practical Exercise: Work with dictionaries and sets to solve real- life problems.

## Module 5

### NUMPY

- Work with NumPy Arrays
- Effecient Indexing and Slicing
- Filtering and Boolean Indexing
- Practical Exercise: Work with NumPy arrays to perform basic array operations, indexing, and Itering.

## Module 6

### Pandas Fundamentals

- 1. Working with Data Frames
- 2. Data Manipulations
- 3. Data Cleaning and Cleansing.
- 3. Series and DataFrame Structures
- 4. working with Pandas Functions.
- 5. Exploratory Data Analysis on Datasets

# COURSE CONTENT

## Module 7

### DATA MANIPULATION WITH PANDAS & DATA VISUALIZATION

- Master Pandas Data Structures
- Explore Data and Visualize Insights
- Practical Exercise: Load and explore a dataset using Pandas and create basic data visualizations using Matplotlib and Seaborn.

## Module 8

### INTRODUCTION TO SQL & BASIC QUERYING

- SQL for Data Retrieval
- Data Modeling Fundamentals
- Advanced Data Sorting and Filtering
- Practical Exercise: Write SQL queries to retrieve and manipulate data from sample database

## Module 9

### ADVANCED SQL CONCEPT & DATA MANIPULATION

- Temporary Tables and Documentation
- Aggregations and Grouping Data
- Advanced SQL Operations and Joins
- Practical Exercise: Perform more complex SQL operations, such as joining and aggregating data.

## Module 10

### FUNDAMENTALS OF STATISTICS & PROBABILITY

- Understand Data.
- Central Tendency and Variance.
- Probability and Distribution Basics.
- Practical Exercise: Calculate mean, median, variance, and standard deviation.

# COURSE CONTENT

## Module 11

### ADVANCED STATISTICS & HYPOTHESIS TESTING

- Hypothesis Testing Techniques Interpret Data Visualizations
- Correlation, Regression, and ANOVA.
- Practical Exercise: Perform hypothesis tests and analyze real datasets using statistical techniques.

## Module 12

### INTRODUCTION TO MACHINE LEARNING AND REGRESSION BASICS

- Dive into Machine Learning.
- Data Preprocessing Essentials.
- Linear Regression for Predictive Modeling.
- Practical Exercise: Implement a simple linear regression model and evaluate its performance.

## Module 13

### MULTIPLE LINEAR REGRESSION & MODEL EVALUATION

- Evaluate Models with MAE, MSE, RMSE, R2 Score.
- Multiple Linear Regression.
- Practical Model Evaluation with Real Data.
- Practical Exercise: Build and evaluate a multiple linear regression model using a real-world dataset.

## Module 14

### LOGISTIC REGRESSION AND CLASSIFICATION METRICS

- Master Logistic Regression
- Classification Metrics for Model Assessment
- Practical Exercise: Train and evaluate logistic regression models for binary and multiclass classification problems.

# COURSE CONTENT

## Module 15

### SUPPORT VECTOR MACHINES (SVM) AND K-NEAREST NEIGHBORS (KNN)

- Classification with SVM
- K-Nearest Neighbors for Predictions
- Choose K and Distances

## Module 16

### DECISION TREES AND ENSEMBLE METHODS

- Understand Decision Trees
- Prevent Overfitting and Tree Pruning
- Explore Random Forest and Gradient Boosting
- Practical Exercise: Create decision tree models and explore the power of ensemble methods

## Module 17

### MODEL EVALUATION AND VALIDATION TECHNIQUES

- K-Fold Cross-Validation
- Hyperparameter Tuning
- In-Depth Classification Metrics
- Practical Exercise: Apply K-fold cross-validation and hyperparameter tuning to improve model performance.

## Module 18

### STREAMLIT / FLASK

- Building Large-scale, data-driven applications
- Develop Enterprise-level web applications
- Create Projects with a built-in admin interface and form handling
- Provides Rapid prototyping with built-in tools and a well-defined structure

# COURSE CONTENT

## Module 19

### RECOMMENDATION ENGINES

- Understand the core principles and algorithms behind recommendation systems.
- Build and implement content-based recommendation systems using Python.
- Design and deploy hybrid systems that combine multiple recommendation techniques for enhanced performance.
- Evaluate recommendation models using industry-standard metrics and optimization Techniques.

## Module 20

### UNSUPERVISED LEARNING

- Discover K-Means Clustering
- Hierarchical Clustering Techniques
- Clustering for Data Insights
- Practical Exercise Implement Means clustering and hierarchical clustering on real

## Module 21

### TIME SERIES MODELLING WITH ARIMA AND SARIMA

- Understand Time Series Data.
- Build ARIMA and SARIMA Models.
- Practical Forecasting and Model Evaluation.
- Practical Exercise: Analyze and forecast time series data using ARIMA and SARIMA models.

## Module 22

### INTRODUCTION TO DEEP LEARNING

- Overview of Artificial Neural Networks.
- Basic Deep Learning Concepts.

# COURSE CONTENT

- Build and Train Simple Neural Networks.
- Practical Exercise Build and train simple neural network on a data using deep learning frameworks.

## Module 23

### DEEP LEARNING ARCHITECTURES AND TRAINING

Dive into CNNs and RNN

- Train Deep Learning Models(ANN).
- Avoid over fitting with Regularization.
- Practical Exercise Create and train Convolution neural networks (CNNs) and Recurrent Neural Networks (RNNs) for various tasks

## Module 24

### NATURAL LANGUAGE PROCESSING (NLP)

- Introduction to NLP, Challenges & Key Tasks.
- Pre-process Text Data.
- Create Text Classification Models.
- Practical Exercise: Perform text preprocessing and build a text classification model using NLP techniques.

## Module 25

### END TO END DATA SCIENCE PROJECT –01

- Understanding end-to-end Data
- Model Development, Interpretation & business recommendation
- Introduction to Deployment
- Practical Exercise: Deploy a machine learning model as a web API and monitor its performance.

# COURSE CONTENT

## Module 26

### END TO END DATA SCIENCE PROJECT – 02

- Understanding Deep Learning & NLP Business Problem
- Model Evolution and Deployment
- Practical Exercise: Deploy a machine Deep Learning & NLP as a web API and monitor its performance.

## Module 27

### POWER BI

- Introduction to Power BI
- Data Transformation and Modeling
- Create Interactive Dashboards
- Practical Exercise: Transform data and create interactive dashboards in Power BI using real-world datasets.
- DAX Queries and Data Transformations.

## Module 28

### Generative AI Basicsrd

- Fine-tuning LLMs for Specific Tasks
- Practical Exercise: Implementing ne- tuning code with Hugging Face libraries using your own custom data.
- Prompt Engineering.
- Building chatbot using pre-trained Algorithms.

# **ADVANCED PROGRAM CURRICULUM**

**PREMIUM**

**+**

**GENERATIVE AI ADVANCED,  
HTML ,CSS**

# COURSE CONTENT

## Module 1

### ADVANCED FINE-TUNING AND MODEL EVALUATION

- Prompt engineering and its impact on generated text
- Text-to-Speech and Speech-to-Text Integration with Hugging Face
- Practical Exercise: Fine-tuning and evaluation with Advanced Techniques and Text-to-Speech/ Speech-to-Text.

## Module 2

### BUILDING A REAL-LIFE CHATBOT

- Designing and Developing a Chatbot
- Integrating fine-tuned LLM models for text generation, dialogue, and text-to-speech/speech-to-text
- Building the chatbot interface and user interaction ow
- Practical Exercise: Deploying customized chatbot using Gradio.

## Module 3

### CSS FRAME WORK BOOTSTRAP :

- Introduction to CSS
- CSS Syntax & Selectors
- Colors and Backgrounds
- Text and Fonts
- Layout and Positioning
- Flexbox
- CSS Grid
- CSS Transitions and Animations
- CSS Pseudo-classes & Pseudo-elements
- Advanced Styling

## Module 4

### HTML :

- HTML and CSS Overview
- Deep Dive into HTML
- Practical Examples with Forms
- CSS Selectors and Layouts
- Fonts, Colors, Typography
- HTML Document Structure
- Text Formatting Tags
- HTML Elements
- Links and Navigation
- Images and Multimedia
- HTML Tables
- HTML Forms
- HTML Attributes
- HTML APIs & Integrations
- HTML Entities and Symbols



## Program Fees

### Generative AI & Agentic AI Development

	Premium	Advanced
Welcome Kit	✗	✓
Laptop	✗	✓
Live Sessions And Mentorship	✓	✓
Recorded Sessions	✓	✓
Real Work Experince	✓	✓
Job Ready Portfolio	✓	✓
Career Guidance	Job Assistance	Job Guarantee
Project Based Learning	✓	✓
Lms Access	✓	✓
Study Material	✓	✓
Course Duration	4 Months + 2 Months Internship	4 Months + 6 Months Internship
Doubt Clearing Sessions	Group Sessions	1-On-1 Mentorship
Completion Certificate	✓	✓
LOI And Offer Letter	✗	✓
Experience Certificate	✗	✓
2 Years Bond	✗	✓
Mock Tests	04	15
Placement Opportunities	Upto 5	Unlimited
Internship Exams	✗	Yes (6 Exams)
Package	✗	3-6 LPA
Fee Structure (including GST)	82600 /-	1,75000 /-

# OUR CLIENTS



PROCORP SYSTEMS



SEVAKI



NEWS



ENGLISH



ANALYTICS



CONCENTRIX



YOUTH4JOBS



TATA  
CONSULTANCY  
SERVICES

J.P.Morgan



Persistent



PrimeSoft



REALPAGE



CONSULTING



Talentployer



randstad

KGL



Innovative ,Optimized & Reliable



Shodat



Continuous Quality Assurance



symphony



i-ray



webappclouds



intelliswift



Abilio  
IT Solutions PVT LTD



Kaar  
In Pursuit of Excellence



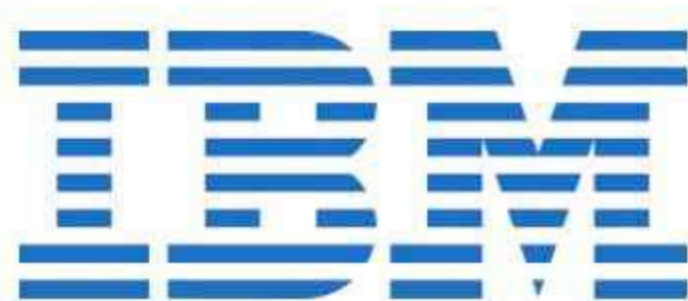
LANCESOFT



QUADRANT RESOURCE  
ACHIEVE MORE TOGETHER



INFOVISION



HEALTH



Shodat

# TechU Achievers



Akhil  
excelra



Prem Nayak  
azuga  
a Bridgestone Company



Anusha  
tejoma



S. Mahender  
@tisfy



D. Chaitanya  
LTS LAVU TECH SOLUTIONS



k. Manjusha  
azuga  
a Bridgestone Company



Vennala  
QUESS



B. Srikanth  
FI



P. KAVYASWI  
LTS LAVU TECH SOLUTIONS



Rasha Naidu  
Abilio  
IT Solutions PVT LTD



Reshander  
Abilio  
IT Solutions PVT LTD



Shashidhar Reddy  
B2B



SAI PAVAN .CH  
Apexon



JETTI MAHESH  
FI



B.YASHWANTH  
EK



Y. SATHWIKHA  
DATABEAT



C.PRUDHVI RAJU  
tcs



SN PRATHYUSHA  
tcs



KATTA RAM KIRAN  
tcs



P.UDAY  
QUESS

# TechU Achievers



**Bindu**



**Ramesh**



**D.Tulasi**



**K. Sri vani**



**T.Ramakrishna**



**Shiva krishna**



**Vani**



**N. Mithul Sai**



**Ravi Kiran**



**Venkat Rao**



**P. Siva Kumar**



**Mounika Reddy**



**Shanvika**



**K. MAHESH**



**VISHAL**



**SAMBAVI**



**SAGAR**



**RISHINDER**



**SURAJ**



**MADHURI**



# Career Services



Real time projects



Live Mentoring



Communication  
Club



Mock Interviews



Resume &Portfolio  
Building

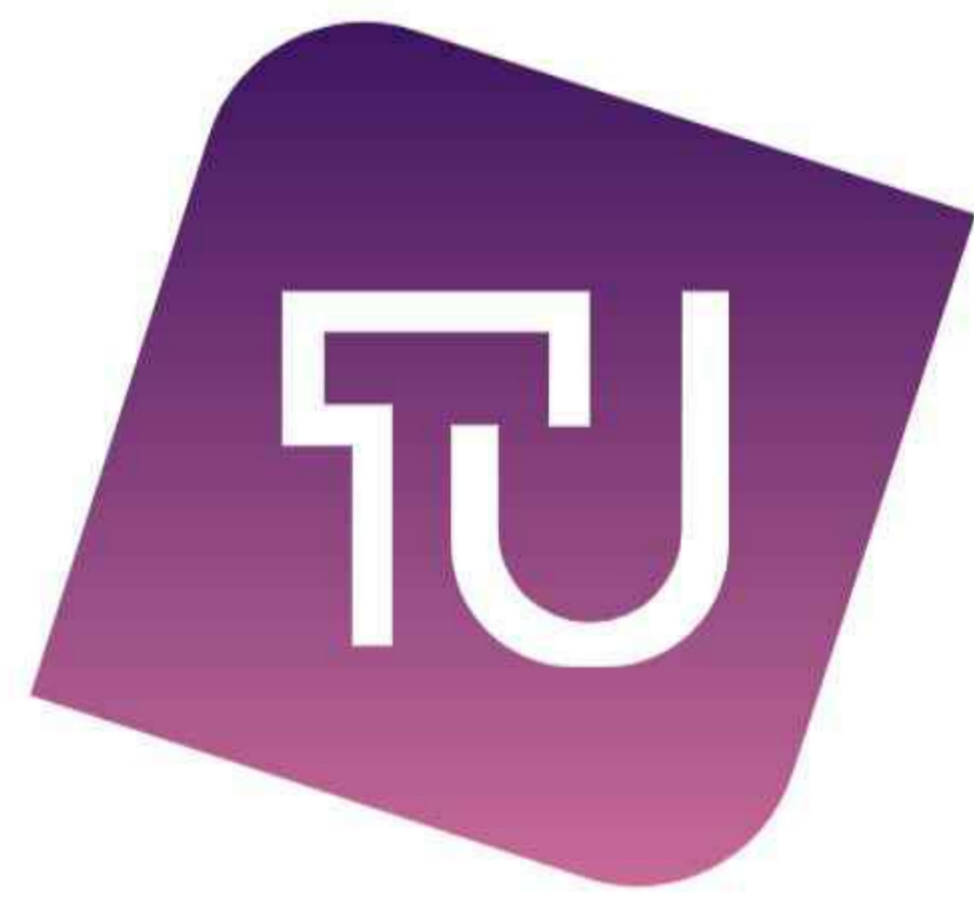


100% Job  
Assistance

## Become Job Ready

### Duration

4 Months Training + 2 Months Internship



**TechU**  
INNOVATION LABS PVT LTD

### **Your Tech Journey Starts Here!**

Thank you for choosing TechU. Start your learning adventure with us, where every step takes you closer to tech mastery. Let's build a future filled with knowledge and success together!



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