



Calling all aspiring Data Scientists and AI enthusiasts!

Are you ready to unlock the secrets of Artificial Intelligence and Machine Learning? Look no further! Welcome to Life Skill Learning, where learning meets real-world application, and dreams meet reality!

Why should you join our institute?

1. **Hands-On Learning Experience:** At **Life Skill Learning**, we believe in learning by doing. Get ready to roll up your sleeves and dive into real-world projects from day one! Our industry-expert instructors will guide you through every step, ensuring you gain practical skills that employers crave.
2. **Cutting-Edge Curriculum:** Stay ahead of the curve with our dynamic curriculum, meticulously crafted to cover the latest advancements and trends in AI and ML. From fundamental concepts to advanced techniques, we've got you covered!
3. **Industry Connections:** Gain invaluable insights and networking opportunities through our partnerships with leading companies in the AI and tech industry. Get first hand exposure to industry practices, challenges, and trends, giving you a competitive edge in the job market.
4. **Career Support:** Your success is our priority. Benefit from personalised career guidance, resume workshops, mock interviews, and job placement assistance to help you land your dream job in the exciting field of AI and ML.

How to Excel in ML/AI through our Institute?

1. **Immersive Learning Environment:** Immerse yourself in a supportive and collaborative learning environment designed to foster creativity, innovation, and critical thinking.
2. **Practice, Practice, Practice:** Master the art of ML/AI through hands-on projects, case studies, and real-world challenges. Our goal is not just to teach you theory but to empower you with practical skills that translate into real results.
3. **Continuous Learning:** Stay curious and hungry for knowledge! Our learning doesn't stop after graduation. Join our alumni network, attend



workshops, and access exclusive resources to stay updated on the latest advancements in AI and ML throughout your career journey.

What to do in order to excel in the AI domain?

1. **Stay Curious:** The field of AI is constantly evolving. Keep exploring new ideas, technologies, and research papers to expand your knowledge base.
2. **Build a Strong Foundation:** Master the fundamentals of mathematics, statistics, and programming languages like Python to build a solid foundation for your AI journey.
3. **Hands-On Experience:** Practice, practice, practice! Dive into projects, Kaggle competitions, and open-source contributions to gain practical experience and showcase your skills to the world.
4. **Never Stop Learning:** Embrace a growth mindset and commit to lifelong learning. Whether it's attending workshops, pursuing certifications, or joining online communities, never miss an opportunity to expand your horizons and grow as a professional.



❖ Data Science Enthusiast Program for College Students

Objective: To equip college students with intermediate-level skills and practical experience in data science, preparing them for real-world applications and further career pursuits in the field.

Duration: 12 weeks

<u>Topic</u>	<u>Sub-Topic</u>	<u>Week</u>
Foundations of Data Science	<ul style="list-style-type: none">● Introduction to Python for Data Science:<ul style="list-style-type: none">○ Basics of Python programming language.○ Libraries: NumPy, Pandas, Matplotlib.● Understanding Data Structures:<ul style="list-style-type: none">○ Arrays, Lists, Dictionaries.● Data Manipulation with Pandas:<ul style="list-style-type: none">○ Data cleaning, filtering, and manipulation.	Week 1-2
Exploratory Data Analysis (EDA)	<ul style="list-style-type: none">● Visualizing Data:<ul style="list-style-type: none">○ Using Matplotlib and Seaborn for data visualisation.● Statistical Analysis:<ul style="list-style-type: none">○ Descriptive statistics, correlation analysis. <p>Hands-on Project: Analysing a dataset using EDA techniques.</p>	Week 3-4
Machine Learning Fundamentals	<ul style="list-style-type: none">● Introduction to Machine Learning:<ul style="list-style-type: none">○ Supervised vs. Unsupervised Learning.○ Regression, Classification, Clustering.● Model Evaluation and Validation:	Week 5-6



	<ul style="list-style-type: none"> ○ Cross-validation, performance metrics. ● Implementing Machine Learning Algorithms: <ul style="list-style-type: none"> ○ Linear Regression, Logistic Regression, K-Means Clustering. 	
Advanced Machine Learning Techniques	<ul style="list-style-type: none"> ● Feature Engineering: <ul style="list-style-type: none"> ○ Handling missing values, encoding categorical variables. ● Dimensionality Reduction: <ul style="list-style-type: none"> ○ Principal Component Analysis (PCA), t-SNE. ● Ensemble Methods: <ul style="list-style-type: none"> ○ Random Forest, Gradient Boosting. 	Week 7-8
Applied Machine Learning	<ul style="list-style-type: none"> ● Building End-to-End ML Pipelines: <ul style="list-style-type: none"> ○ Data preprocessing, feature scaling, model training, evaluation. ● Handling Imbalanced Datasets: <ul style="list-style-type: none"> ○ Techniques for dealing with imbalanced classes. ● Real-world Case Study: Solving a classification problem using a dataset from a chosen domain (e.g., healthcare, finance, marketing). 	Week 9-10
Capstone Project	<ul style="list-style-type: none"> ● Team-based Capstone Project: <ul style="list-style-type: none"> ○ Applying learned concepts and techniques to solve a real-world problem. ○ Data acquisition, preprocessing, exploratory analysis, model building, evaluation, and presentation. ● Final Presentation: <ul style="list-style-type: none"> ○ Each team presents their project findings, methodology, and insights gained to the class and faculty. 	Week 11-12

Additional Resources:

- **Online tutorials, articles, and documentation.**

Life Skill Learnings

Learning is an essence of Life



-
- **Kaggle competitions for practice.**
 - **Guest lectures from industry experts.**

