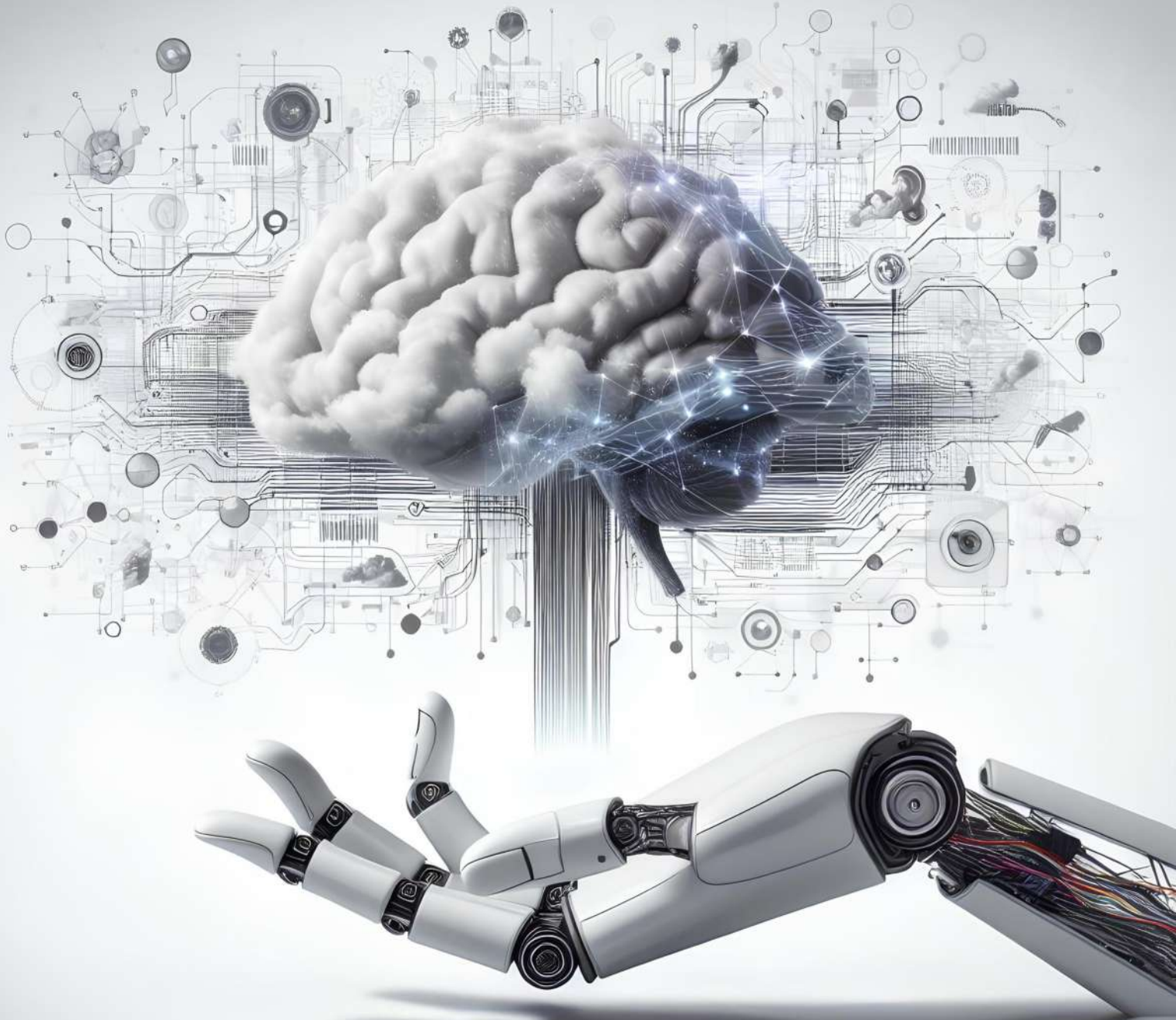


Mastering Machine Learning:

A Comprehensive Course Syllabus



MACHINE LEARNING

Course Mission

SevenMentor Institute leads the way in providing cutting-edge IT Training and Skill Development across India. We have strived to establish an ideal learning atmosphere at all our training centers. We prepare our students to become dependable future professionals. Our institute aspires to promote universal access to learning for students. To achieve our mission of promoting better learning we invite all students to enroll in our Machine Learning Course. Join us today to make a fulfilling career in Machine Learning.

MACHINE LEARNING STATISTICS:



INDUSTRY INSIGHTS

65%

Companies will use some form of Machine learning based Application

38%

Year on Year Growth For All Machine learning Jobs

**Learn Machine learning and
Be in Demand Always!**

Machine learning, the neural network-driven wizardry of the digital age, is the enchanting art of teaching computers to learn and make predictions from data. Imagine it as the modern-day oracle, sifting through vast data sets to unveil patterns, make decisions, and even predict the future. It's what powers recommendation systems that know your tastes better than you do and self-driving cars that navigate the streets with finesse. In the world of machine learning, algorithms become your loyal apprentices, mastering everything from image recognition to natural language processing. So, prepare to don your digital robe and embark on a quest to unravel the secrets of machine learning, where each line of code is a spell that brings technology to life!

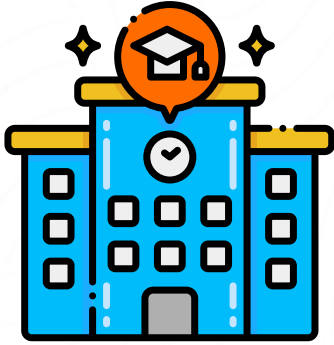
Unlock the Potential of Machine Learning: **Achieve Boundless Innovation**



If your aspiration is to attain expertise in Machine Learning, a realm revered for its limitless possibilities and far-reaching influence, it is essential to set out on a perpetual voyage dedicated to continuous growth and competence within this ever-evolving field. Machine Learning stands out for its flexibility and extensive applicability across a myriad of sectors, enabling enthusiasts to craft a diverse range of ingenious, forward-thinking, and game-changing solutions.

Be Prepared For Every Scenario!

Gain practical Machine learning experiences
through well designed



Experienced Faculty



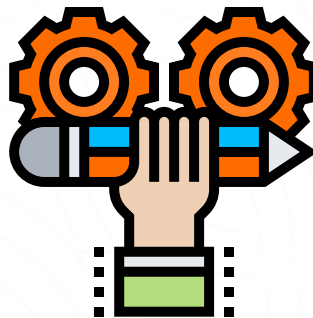
Flexible Scheduling



Hands-On Learning



Mock Interview Sessions



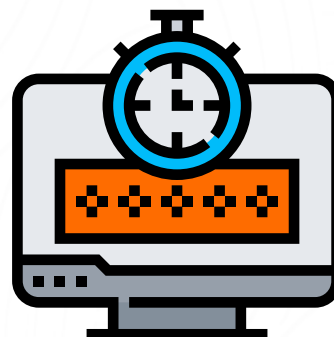
Real-World Projects



Career Support



Comprehensive Curriculum



Lifetime Access



Introduction

DataScience Vs DataAnalysis Vs MachineLearning Vs DeepLearning
Introduction to Numpy, Pandas, Sci-kit Learn and Matplotlib Library
Importing data from different Sources

Basic Terminologies and Basic Maths:

- Traditional Programming Vs Machine Learning
- Types of Machine Learning Problems
- Supervised and Unsupervised Learning
- Classification and Regression
- Overfitting and Underfitting
- What is a point and a Vector?
- Distance between 2 points, Distance between point and a line.
- Equation of a line, Equation of a Plane, Equation of a hyper plane.
- Dot product and Projection of one vector onto another.
- Basics of Differentiation
- KNN(K nearest Neighbour) Algorithm
- Geometric Intuition of KNN
- Mathematical Intuition of KNN
- Limitations of KNN
- What are Hyper-parameters?
- Hyper-parameters Tuning
- Why do we need Cross-Validation?
- Code Walkthrough on KNN

Supervised Learning Continues:

- Naive Bayes algorithm
- What is Conditional Probability
- What is Naive about Naive Bayes?
- Geometric Intuition of Naive Bayes
- Mathematical Intuition of Naive Bayes
- Limitations of Naive Bayes
- Hyperparameter Tuning in Naive Bayes
- Code Walkthrough of Naive Bayes
- Introduction to Logistic Regression
- Geometric Intuition of Logistic Regression
- Mathematical Intuition of Logistic Regression
- Why do we need sigmoid function?
- Regularisation(L1 and L2)
- Limitations of Logistic Regression
- Code Walkthrough of Logistic Regression

Supervised Learning Continues:

- Introduction to Linear Regression
- Geometric and Mathematical Intuition
- Assumptions of Linear Regression
- Limitations of Linear Regression
- Code Walkthrough of Linear Regression
- Optimisation Theory
- Convex and Non Convex Functions
- Gradient Descent
- Stochastic Gradient Descent
- Introduction to SVM(Support Vector Machines)
- Geometric Intuition
- Mathematical Intuition
- Hard and Soft SVM
- Kernelisation in SVM(Radial Basis Function)
- Limitations of SVM
- Code Walkthrough of SVM

Decision Tree and Ensembles :

- Decision Tree
- Geometric Intuition of Decision Tree
- Mathematical Intuition of Decision Tree
- Entropy and Gini Impurity
- Information Gain
- Limitations of Decision Tree
- Code Walkthrough of Decision Tree
- What is Ensembles
- Bagging and Boosting
- What is Ensembles?
- Bagging and Boosting
- Concept of Bootstrapping
- Introduction to Random Forest
- Variance and Bias
- Geometric Intuition of Random Forest
- Why Random Forest is so famous?
- Code Walkthrough of Random Forest
- Performance Metric and Different

Situations in Supervised Learning :

- Accuracy
- Why Accuracy as a metric will fail in most of the real world cases?
- Precision and Recall
- F1 Score
- Confusion Matrix
- Log-loss
- ROC-AUC Curve
- RMSE(Root Mean Square Error)
- R2(Coefficient of Determinant)
- MAD(Median Absolute Deviation)
- How to Handle Outliers in the data?
- How to deal with the imbalance data?
- How to handle categorical data?
- Scaling of Features
- Curse of Dimensionality



Unsupervised Learning and Dimension Reduction:

- What is Unsupervised Learning?
- What is Clustering?
- K-Means Clustering
- Hierarchical Clustering
- Why Dimensions Reduction?
- PCA(Principle Component Analysis)

Machine Learning Project :

- Business Problem
- Constraints
- Data Collection
- Formulate Business Problem to Machine Learning Problem
- Data Cleaning
- Data Preprocessing
- EDA(Exploratory Data Analysis)
- Modelling
- Evaluating the Performance of the models
- Retrain if necessary
- Deployment

Get Skills To Fulfill Every Role:

Every student at **SevenMentor** gets personalized guidance, Mentorship, and ample opportunities to address individual questions and concerns. All our sessions are designed to be engaging, interactive, and tailored to your learning pace, ensuring you grasp each concept with clarity.



Nishesh Gogia

He is passionate about cutting edge technologies in Machine Learning and AI. He is also leading the Project Team and has implemented a chatbot for the company. He is a student of IIT Madras.



Aniket Kulkarni

He has theoretical as well as practical experience in the field of ML. He did M Tech and has 10+ years of Industrial and Academic experience. Currently working as Data Science Trainer. He has trained 2000+ professionals and students for the course of Python, SQL, Power BI, Machine Learning and Deep Learning.



Suraj Kale

He is experienced with an extensive 8+ year track record, he stands as a seasoned Data Scientist. His expertise lies in delivering all-encompassing training encompassing data analytics, machine learning, and statistical modeling for professionals. Renowned for his knack for unraveling intricate concepts, nurturing practical skills, and propelling learners to excel in the data-dominated corporate realm.



Karishma Pawar

Karishma holds a PhD in Computer Engineering, specializing in cutting-edge fields including Artificial Intelligence and Machine Learning. In addition to more than 8 years of experience in Data Science, remarkable publications in peer-reviewed journals and conferences are to her credit. She has previously worked with Avaya and Infosys, and demonstrated a commitment to advancing the frontiers of knowledge.



Sagar Gade

Working as a Data Science Trainer. Has been actively involved in the training sessions with Data Science Aspirants. I have trained more than 300+ professionals and students in Python, SQL, Django, Probability & Statistics, Machine Learning and Data Science. My Total Experience is 2+ years in Python and Data Sci. related areas. Junior Python and Data Analytics post work experience as well as Python Machine Learning Applications.

Get Skills To Fulfill Every Role:

Our Machine learning Courses are designed for a wide range of people looking for skills and opportunities across all major IT sectors



Hands-On Projects: Gain practical experience by working on real-world projects, building a robust portfolio that will impress potential employers.



Flexibility: Our flexible schedule options allow you to learn at your own pace, making it perfect for both beginners and experienced developers looking to upskill.

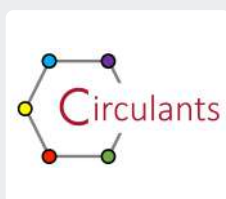
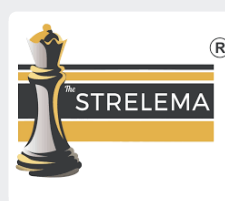


Career Support: We're dedicated to your success! Benefit from career guidance, resume building, interview prep, and job placement



Community: Join a vibrant community of like-minded learners, where you can collaborate, share ideas, and network with peers.

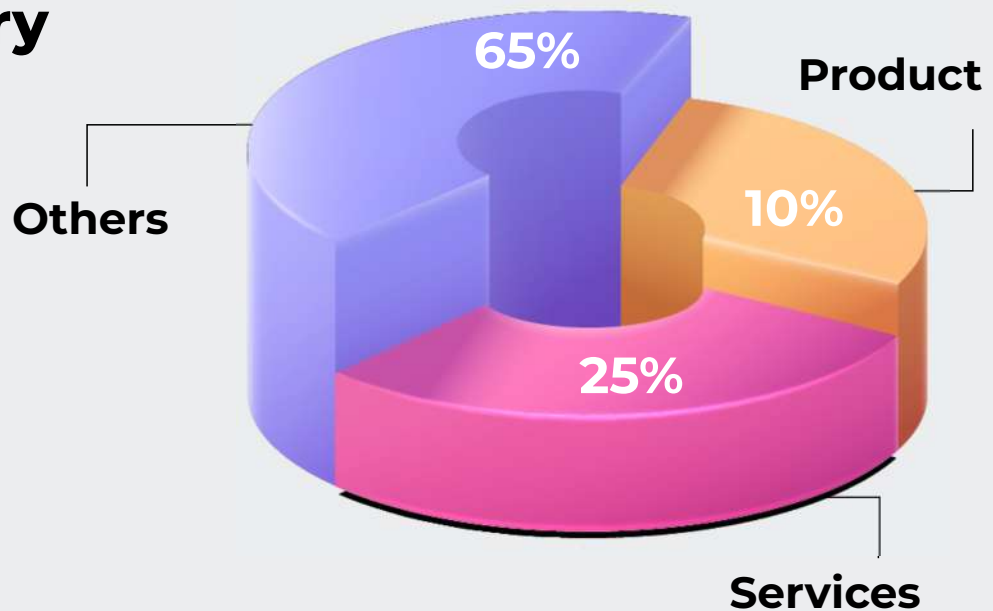
Our Students are at reputed Tech Companies



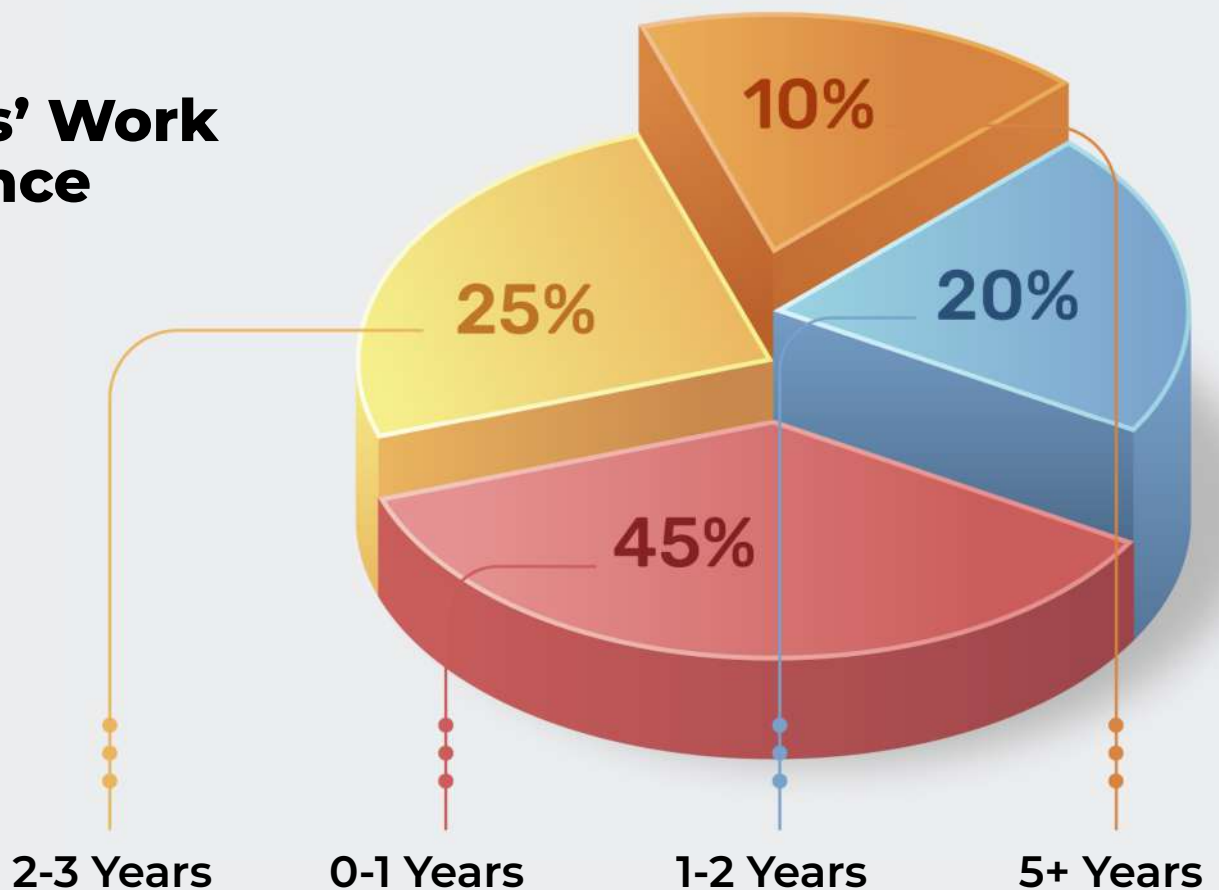
MACHINE LEARNING JOBS ARE ALSO VERY STABLE!

The demand for Machine learning professionals is growing rapidly, so there is a lot of job security in this field. This can be a great motivator for people who are looking for a stable career.

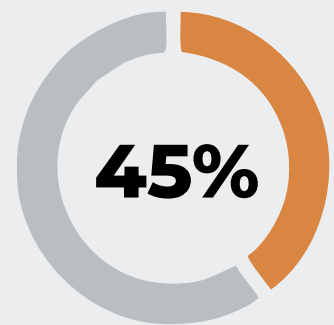
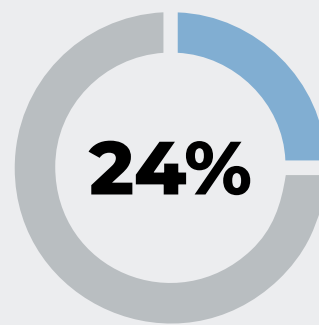
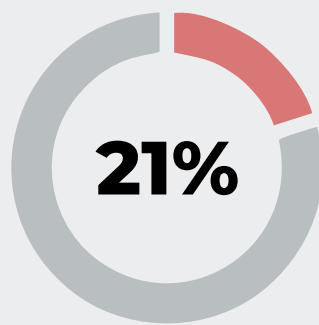
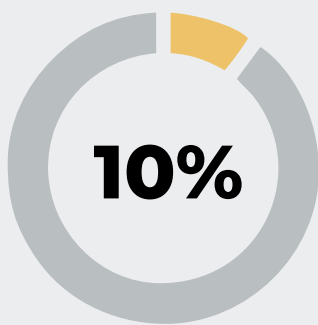
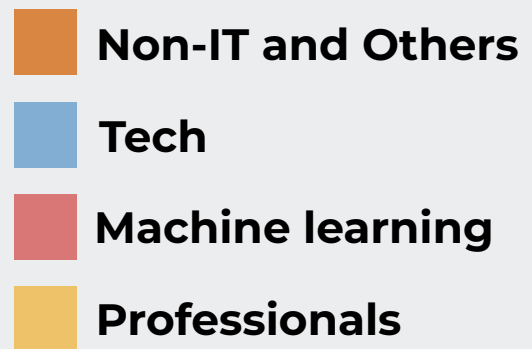
Learners' Industry Background



Learners' Work Experience



Learners' Expertise

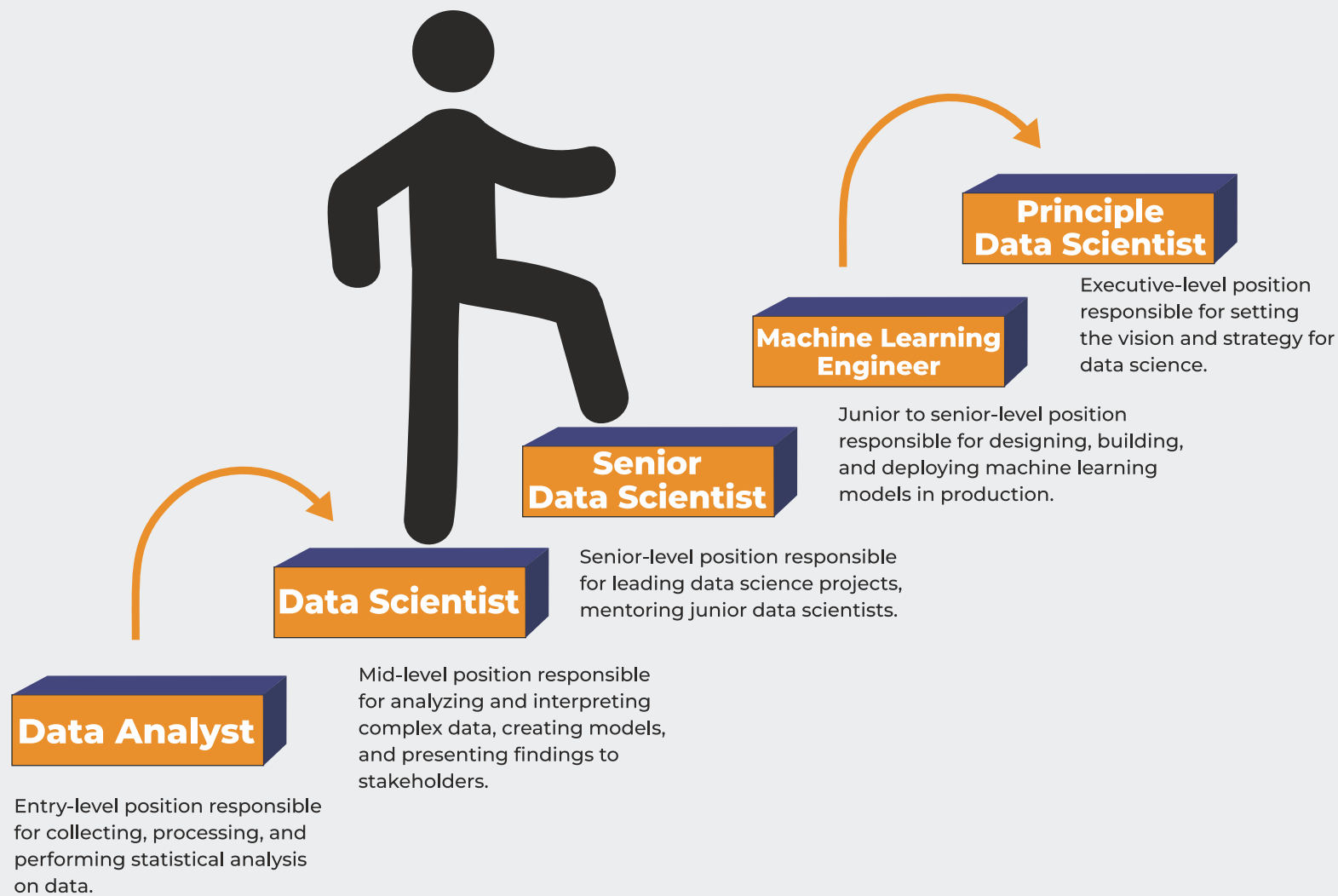


BOOST YOUR CAREER TO NEW HEIGHTS:

The global Machine learning job market is expected to grow by 44% from 2021 to 2030, creating 3.5 million new jobs.

In India it is expected that 309,000 new Machine learning jobs will be available by 2030, accounting for 9% of the global demand. The average salary for an Machine learning professional in India is approximately Rs. 12 to Rs. 14 Lakhs per annum.

CAREER GRAPH



Affordable Training without Compromise:

We recognize that realizing your aspirations in the field of Machine Learning should not strain your finances. At our institution, affordability is at the heart of our Machine Learning Program. We firmly believe that exceptional education should be within reach for all, and we've meticulously designed our curriculum with this principle in mind. Our Machine Learning Program promises an exhilarating learning journey at a remarkably affordable cost.

HOW TO START YOUR CAREER IN MACHINE LEARNING

- Enroll at **SevenMentor Institute**
- Get hands-on training from **Experienced Teachers**
- Receive Industry-recognized **Machine learning Certification**
- Work for leading **MNCs** through our **on-campus interviews**

WE ARE THERE FOR YOU

If you are interested in learning more about Machine learning training, please contact us. Our team would be happy to answer any questions you have and help you find the right training for you.

Request For Call Back



020 7117 1500