

AIML (Machine Learning)

Course Details
<p>About the Course: In this course, the participants will learn everything from data cleaning, data analysis, data visualization, capturing & gathering data from various sources, working with big data to apply statistic to derive insights and building ML (Machine Learning) Predictive Models, clustering or grouping related data and building deep neural network models for NLP (natural Language processing).</p>
<p>About the Trainers: A Team of Trainers with 30+ years of overall combined industry experience. Currently working on data science and related projects.</p>
<p>What is the prerequisite? Basic computer knowledge, passion to work with data to solve problems.</p>

Duration: 120 Hours / Four months (normal track)	Fee: 45,000/-
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Introduction to AIML	<ul style="list-style-type: none"> ● Introduction <ul style="list-style-type: none"> ○ History, Why? How? Real-time Examples of AIML 	
Programming for AI	<ul style="list-style-type: none"> ○ Getting Started with Python ○ Python Intermediate ○ Numpy ○ Python Advanced <ul style="list-style-type: none"> ■ RegEx ■ OOPs ■ Lambda ■ Databases 	
Mathematics for AI	<ul style="list-style-type: none"> ● Mathematics for AI <ul style="list-style-type: none"> ○ Linear Algebra ○ Calculus ○ Fundamental Statistics ○ Advanced Calculus ○ Numerical Optimisation 	

	Machine Learning	<ul style="list-style-type: none"> • Machine Learning <ul style="list-style-type: none"> ○ Supervised Learning ○ Unsupervised Learning ○ Reinforcement Learning ○ Linear Regression ○ Logistic Regression ○ Polynomial Regression ○ Multiple Regression ○ Classification ○ Prediction ○ Algorithms <ul style="list-style-type: none"> ■ Support Vector Machines (SVMs) ■ Tree Models ■ Naive Bayes Model ■ Principal Component Analysis ■ Clustering ■ Boosting ○ Time Series 	
	Deep Learning	<ul style="list-style-type: none"> • Deep Learning <ul style="list-style-type: none"> ○ Architecture ○ Neural Networks ○ Multi Level Perceptron ○ Convolutional Neural Networks ○ Recurrent Neural Networks 	
		Professional AI	
	Getting started With Cloud	<ul style="list-style-type: none"> • AWS Fundamentals and Services • Azure Fundamentals and Services 	
	Natural Language Processing	<ul style="list-style-type: none"> • Natural Language Processing <ul style="list-style-type: none"> ○ Introduction ○ Exploring NLP Libraries <ul style="list-style-type: none"> ■ NLTK ■ SPACY 	

		<ul style="list-style-type: none"> ■ GENSIM ■ KERAS ■ RASA ○ REGEX ○ SCIKIT LEARN ○ Python text files ○ PDF and regular expressions ○ Tokenization ○ Stemming ○ Lemmatization ○ stop words Phrase Matching and Vocabulary ○ Topic Modeling ○ Latent Dirichlet Allocation Overview ○ Non-negative Matrix Factorization ○ Text Blob ○ TextBlob Introduction ○ Finding a polarity of a string with TextBlob ○ Sentiment analysis with TextBlob ○ Measuring language subjectivity with TextBlob and Python ○ Language Translation with Python Module TextBlob , ○ extBlob nGrams Spacy ○ Concepts and Parameters and Interacting with Chatbot ○ Bonus: Discovering NLP on Cloud (AWS, Azure and Google Cloud Platform 	
	Computer Vision	<ul style="list-style-type: none"> ● Computer Vision <ul style="list-style-type: none"> ○ Introduction ○ OpenCV <ul style="list-style-type: none"> ■ Introduction to the Library ■ ○ Image Processing for Computer Vision <ul style="list-style-type: none"> ■ Linear Image Processing ■ Model Fitting ■ Frequency Domain Analysis ○ Camera Models and Calibration <ul style="list-style-type: none"> ■ Camera Views 	

		<ul style="list-style-type: none"> ■ Camera Models ■ Camera Calibration ■ Stereo Geometry ○ Image Motion ○ Image Classification ○ Photometry ○ Optical Flow ○ Tracking ○ Parametric model ○ Useful Libraries ○ Recognition ○ Generative Models ○ Discriminative models ○ Color spaces and Segmentation ○ 3D perception ○ Binary Morphology ○ Bonus: Computer Vision On Cloud (AWS, Azure and Google Cloud Platform) 	
	Capstone project	<ul style="list-style-type: none"> ● Attendance through Face recognition ● Chatbots ● Voice to text processing ● OCR on Cloud. 	