



Master Program

Masters in AI [Generative & Agentic]



500K+

Satisfied Students



100K+

Online Students



300+

Trainers



300K+

Placements



200+

Global Certifications



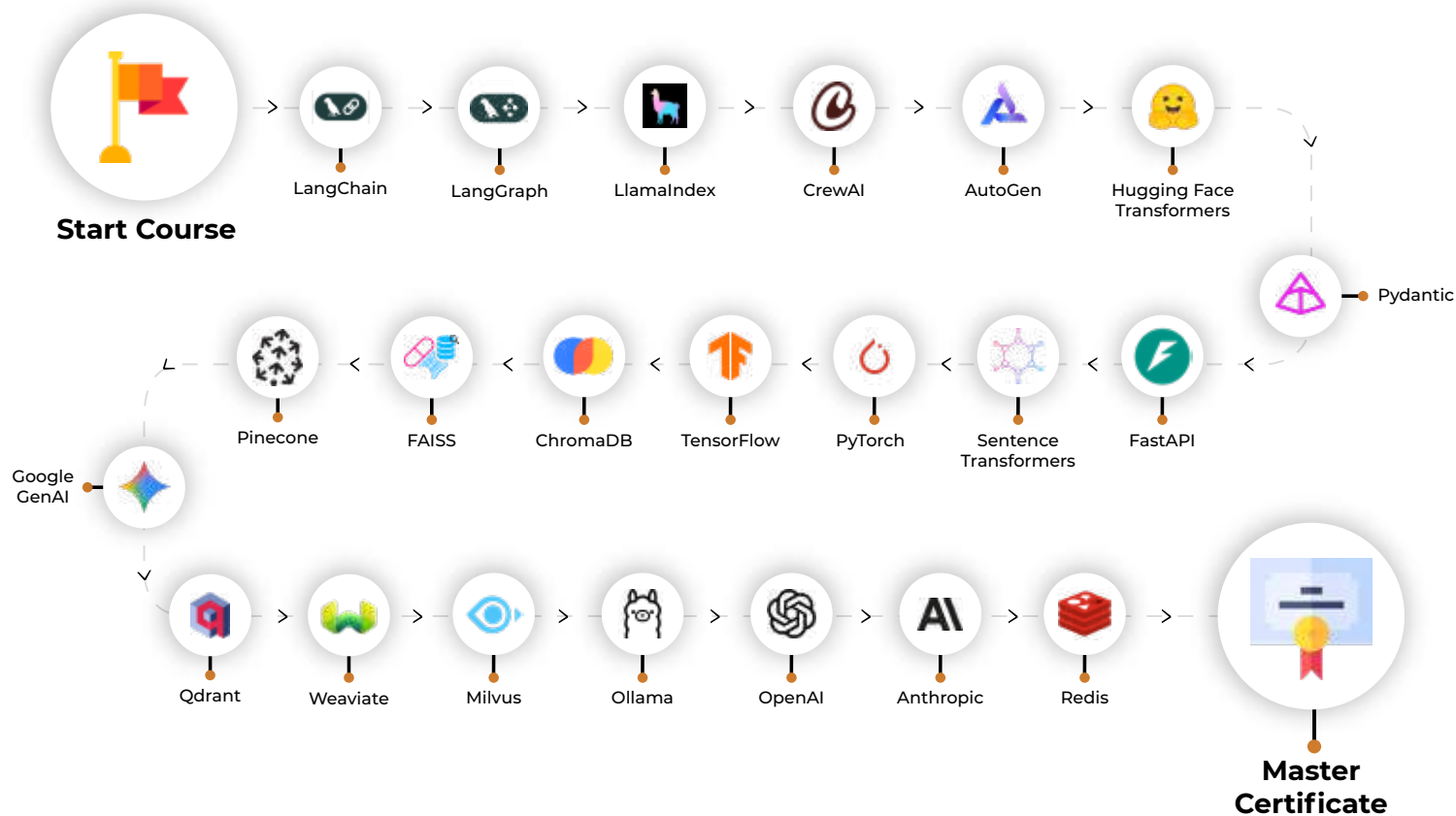
150+

Companies

| Program INDEX

- Python for Generative AI
- Natural Language Processing
- (NLP Fundamentals)
- Introduction to Large Language Models
- Prompting and Prompt Engineering
- Demo Chat Models
- Demo OCI Generative AI Service Inference API
- Demo Setting up OCI Config for Generative AI API
- Agentic AI Essentials
- Agentic AI: Architectures and Design Patterns
- Working with LangChain and LCEL
- Building AI Agents with LangGraph
- Implementing Agentic RAG
- Developing AI Agents with Phidata
- Multi Agent Systems with LangGraph and CrewAI
- Advanced Agent Development with Autogen
- AI Agent Observability and AgentOPs
- Building AI Agents with No/Low- Code Tools

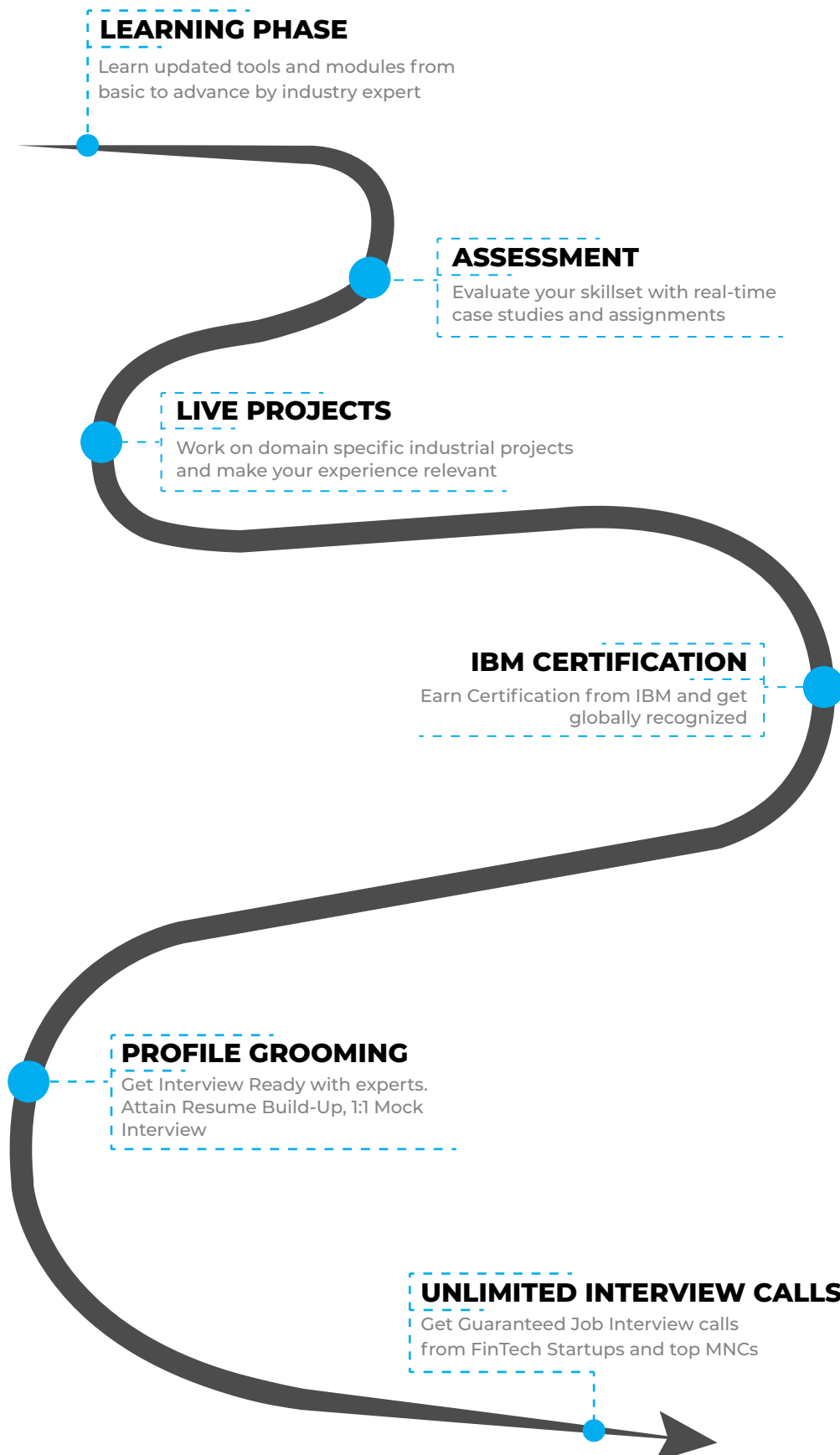
| Learning Curve



Modules of **Masters in AI [Generative & Agentic]**

- ✓ Python for Generative AI
- ✓ Natural Language Processing (NLP Fundamentals)
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|Transition Process



Python for Generative AI

✔ **Objective: Build Programming Foundation Required For AI/ML & GenAI Development**

✔ **Topics Covered:**

- Introduction to Python Programming
- Variables, Data Types, Operators
- Control Statements (if-else, loops)
- Functions & Lambda Expressions
- Data Structures:
 - Lists, Tuples, Sets, Dictionaries
- File Handling
- Exception Handling

✔ **Libraries For AI:**

- NumPy (Numerical Computing)
- Pandas (Data Manipulation)
- Matplotlib / Seaborn (Visualization)
- Introduction to Jupyter Notebook / Google Colab

✔ **Hands-On:**

- Data preprocessing using Pandas
- Basic data visualization
- Mini Project: Data analysis use-case

Natural Language Processing (NLP Fundamentals)

✔ **Objective: Understand Text Processing Before Moving Into LLMs**

✔ **Topics Covered:**

- Introduction to NLP
- Text Preprocessing:
 - Tokenization
 - Stopwords Removal
 - Stemming & Lemmatization
- Text Representation Techniques:
 - Bag of Words (BoW)
 - TF-IDF
- Word Embeddings:
 - Word2Vec
 - GloVe
 - FastText

✔ **NLP Tasks:**

- Text Classification
- Sentiment Analysis
- Named Entity Recognition (NER)
- Language Translation Basics

✓ Hands-On:

- Sentiment Analysis using Python
- Text classification project
- Real-world NLP pipeline

Introduction to Large Language Models

✓ What Is A Large Language Model?

LLM Architectures

- ✓ Encoders And Decoders
- ✓ Model Ontology
- ✓ Encoders
- ✓ Decoders
- ✓ Encoders-Decoders
- ✓ Architectures At A Glance

Prompting and Prompt Engineering

- ✓ Affecting The Distribution Over Vocabulary
- ✓ Affecting The Distribution Over Vocabulary
- ✓ Prompting
- ✓ Prompt Engineering
- ✓ In-Context Learning And Few-Shot Prompting
- ✓ Example Prompts
- ✓ Advanced Prompting Strategies

Issues with Prompting

- ✓ Prompt Injection

- ✓ Memorization

Training

- ✓ Training

- ✓ Hardware Costs

Decoding

- ✓ Decoding

- ✓ Greedy Decoding

- ✓ Non-Deterministic Decoding

- ✓ Temperature

Hallucination

- ✓ Hallucination

- ✓ Groundedness And Attributability

LLM Applications

- ✓ Retrieval Augmented Generation

- ✓ Code Models

Multi-Modal

Language Agents

OCI Generative AI Introduction

- ✓ OCI Generative AI Service

- ✓ How Does OCI Generative AI Service Work?

- ✓ Pretrained Foundational Models
- ✓ Fine-Tuning
- ✓ Dedicated AI Clusters

Chat Models

- ✓ Tokens
- ✓ Pretrained Chat Models
- ✓ Chat Model Parameters
- ✓ Preamble Override
- ✓ Temperature
- ✓ Chat Model Parameters
- ✓ Top K
- ✓ Top P
- ✓ Frequency And Presence Penalties

Demo Chat Models

Demo OCI Generative AI Service Inference API

Demo Setting up OCI Config for Generative AI API

Embedding Models

- ✓ Embeddings
- ✓ Word Embeddings

Semantic Similarity

Sentence Embeddings

Embeddings use case

Embedding Models in Generative AI

Embedding Models in Generative AI

Demo Embedding Model

Prompt Engineering

- ✓ Prompt & Prompt Engineering
- ✓ LLMs As Next Word Predictors
- ✓ Aligning LLMs To Follow Instructions
- ✓ In-Context Learning And Few-Shot Prompting
- ✓ Prompt Formats
- ✓ Advanced Prompting Strategies

Customize LLMs with your data

- ✓ Training LLMs From Scratch With My Data?
- ✓ In-Context Learning / Few-Shot Prompting
- ✓ Fine-Tuning A Pretrained Model
- ✓ Fine-Tuning Benefits
- ✓ Retrieval Augmented Generation (RAG)
- ✓ Customize LLMs With Your Data

Fine-tuning and Inference in OCI Generative AI

- ✓ Fine-Tuning And Inference
- ✓ Fine-Tuning Workflow In OCI Generative AI

- ✓ Inference Workflow In OCI Generative AI
- ✓ Dedicated AI Clusters
- ✓ T-Few Fine-Tuning

T-Few fine-tuning process

Reducing Inference costs

Inference serving with minimal overhead

Dedicated AI Clusters Sizing and Pricing

- ✓ Dedicated AI Cluster Units
- ✓ Dedicated AI Cluster Units Sizing
- ✓ Dedicated AI Clusters Sizing
- ✓ Example Pricing

Demo Dedicated AI Clusters

Generative AI Fine-tuning Configuration

- ✓ Fine-Tuning Configuration
- ✓ Fine-Tuning Parameters (T-Few)
- ✓ Understanding Fine-Tuning Results

Demo Fine-tuning and Custom Models

Demo Inference using Endpoint

OCI Generative AI Security

- ✓ Dedicated GPU And RDMA Network
- ✓ Model Endpoints
- ✓ Customer Data And Model Isolation
- ✓ Generative AI Leverages OCI Security Services

Retrieval Augmented Generation

- ✓ Retrieval Augmented Generation
- ✓ RAG Framework
- ✓ RAG Techniques
- ✓ RAG Pipeline

NNX compatible

Database-Native Vector Embedding Generation

Vector Index

Vector Index Syntax

Similarity Searches in Oracle 23i

Vector Search SQL

Vector Search

AI Vector Search powers Gen AI pipelines

Application Development

Agentic AI Essentials

- ✓ Agentic AI Introduction
- ✓ AI Agents Vs. Agentic AI
- ✓ Comparison: Agentic AI, Generative AI, And Traditional AI
- ✓ Agentic AI Building Blocks
- ✓ Autonomous Agents
- ✓ Human In The Loops Systems
- ✓ Single And Multi Agent AI Systems
- ✓ Agentic AI Frameworks Overview
- ✓ Ethical And Responsible AI
- ✓ Agentic AI Best Practices
- ✓ AI Implementation Success Stories: Case Studies

Agentic AI: Architectures and Design Patterns

- ✓ Agentic AI Architecture
- ✓ Agentic Architecture Types
- ✓ Key Components Of The Agentic AI Framework
- ✓ Perception Module
- ✓ Cognitive Module
- ✓ Action Module
- ✓ Learning Module
- ✓ Collaboration Module
- ✓ Security Module
- ✓ Agentic AI Design Patterns
- ✓ Reflection Pattern

- ✓ Tool Use Pattern
- ✓ Planning Pattern
- ✓ ReAct (Reasoning And Acting) And ReWOO (Reasoning With Open Ontology)
- ✓ Multi Agent Pattern
- ✓ Design Considerations

Working with LangChain and LCEL

- ✓ Components And Modules
- ✓ Data Ingestion And Document Loaders
- ✓ Text Splitting
- ✓ Embeddings
- ✓ Integration With Vector Databases
- ✓ Introduction To Langchain Expression Language (LCEL)
- ✓ Runnables
- ✓ Chains
- ✓ Building And Deploying With LCEL
- ✓ Deployment With Langserve

Building AI Agents with LangGraph

- ✓ Introduction To LangGraph
- ✓ State And Memory
- ✓ State Schema
- ✓ State Reducer
- ✓ Multiple Schemas
- ✓ Trim And Filter Messages

- ✓ Memory And External Memory
- ✓ UX And Human-In-The-Loop (HITL)
- ✓ Building Agent With LangGraph
- ✓ Long Term Memory
- ✓ Short Vs. Long Term Memory
- ✓ Memory Schema
- ✓ Deployment

Implementing Agentic RAG

- ✓ What Is Agentic RAG?
- ✓ Agentic RAG Vs. Traditional RAG
- ✓ Agentic RAG Architecture And Components
- ✓ Understanding Adaptive RAG
- ✓ Variants Of Agentic RAG
- ✓ Applications Of Agentic RAG
- ✓ Agentic RAG With Llamaindex
- ✓ Agentic RAG With Cohere

Developing AI Agents with Phidata

- ✓ Agents
- ✓ Models
- ✓ Tools
- ✓ Knowledge
- ✓ Chunking
- ✓ Vector DB
- ✓ Storage

- ✓ Embeddings
- ✓ Workflows
- ✓ Developing Agents With Phidata

Multi Agent Systems with LangGraph and CrewAI

- ✓ Multi Agent Systems
- ✓ Multi Agent Workflows
- ✓ Collaborative Multi Agents
- ✓ Multi Agent Designs
- ✓ Multi Agent Workflow With LangGraph
- ✓ CrewAI Introduction
- ✓ CrewAI Components
- ✓ Setting Up CrewAI Environment
- ✓ Building Agents With CrewAI

Advanced Agent Development with Autogen

- ✓ Autogen Introduction
- ✓ Salient Features
- ✓ Roles And Conversations
- ✓ Chat Terminations
- ✓ Human-In-The-Loop
- ✓ Code Executor
- ✓ Tool Use
- ✓ Conversation Patterns
- ✓ Developing Autogen-Powered Agents
- ✓ Deployment And Monitoring

AI Agent Observability and AgentOPs

- ✓ Langfuse Overview
- ✓ Langfuse Dashboard
- ✓ Tracing
- ✓ Evaluation
- ✓ Managing Prompts
- ✓ Experimentation
- ✓ AI Observability With Langsmith
- ✓ Setting Up Langsmith
- ✓ Managing Workflows With Langsmith
- ✓ AgentOps Practical Implementation

Building AI Agents with No/Low- Code Tools

- ✓ Introduction To No-Code/Low-Code AI
- ✓ Benefits And Challenges Of No-Code AI Development
- ✓ Key Components Of No-Code AI Platforms
- ✓ Building AI Workflows Without Coding
- ✓ Designing AI Agents With Drag-And-Drop Interfaces
- ✓ Integrating No-Code AI With Existing Systems
- ✓ Customizing And Fine-Tuning AI Solutions
- ✓ Optimizing Performance And Efficiency In No-Code AI
- ✓ Security And Compliance Considerations In No-Code AI
- ✓ Best Practices For Deploying No-Code AI Solutions
- ✓ Real-World Use Cases And Applications Of No-Code AI
- ✓ Scaling And Future Trends In No-Code AI

| Course Projects

Domain: Education



Project Name: **AI Quiz Generator**

Build an AI tool that generates topic-based quizzes, including multiple-choice questions and answers, using course content or keywords. Educators can instantly create assessments for various difficulty levels. The system ensures content relevance and adapts to different subjects using prompt-based logic.

Tool & Technology Used:

PYTHON

OPENAI API

LANGCHAIN

Domain: Healthcare



Project Name: **Medical Symptom Checker Chatbot**

Develop a chatbot that accepts user symptoms as input and provides possible diagnoses, health advice, or next steps. It leverages prompt engineering and medical datasets to offer precise suggestions, improving patient engagement and preliminary self-diagnosis.

Tool & Technology Used:

PYTHON

CHATGPT

PROMPT ENGINEERING

Domain: Marketing



Project Name: **Email Campaign Writer**

Build a tool that generates compelling marketing email templates based on product details, target audience, and campaign objectives. It personalizes tone and message structure using prompt engineering, supporting automated content pipelines for marketers.

Tool & Technology Used:

EKS

PYTHON

GPT-4

HUGGING FACE

DISCLAIMER

"Course Curriculum, Training Certificates & Projects details are subject to change without notice, based on industry standards and guidelines.

|e-Learning through LMS

Learning **Management System**

Our LMS (LearnPitch) is for the administration, documentation, tracking, reporting, automation, and delivery of educational courses, training programs, or learning and development programs.

Our LMS has been designed to identify training and learning gaps, using analytical data and reporting to keep you up with the class activities.

Key Features **Learning Management System**



Live Sessions with Class recordings



Get study material with Assignments.



Track your curriculum covered.



Track your class wise attendance



Share your feedback for Trainer & Training



Get your Training Certificate from LMS



| Training Certification

Earn Your **Certificate**

Your certificate and skills are vital to the extent of jump-starting your career and giving you a chance to compete in a global space.



|Croma Campus is Nasscom Certified

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|Croma Campus! Reviews



"The most rewarding part of my experience has been achieving a prestigious certification in the subject that I love. Moreover, the training offered out by the specialists are of world-class and prepares out the students for corporate world. For me Croma Campus means a lot."

"By The Students For The Students,"

Your Success is **Our Story**



Bharat

"I am fully satisfied with the excellent training services received by the expert staff at Croma Campus. I want to thank Croma Campus for providing me with the most innovative and affordable training services for learning all the software testing procedures and guidelines."



Ankit

"It was a lifetime experience for me to get trained by IT Experts of Croma Campus. What I liked most about the training was the consistent high-quality education, which was friendly and co-active. The placement department was also proactive, they keep me updated regarding new job opportunities and provide the grooming session to crack the interview. At last, I would like to thank all faculty members of Croma Campus for their immense help and support."



Umesh

"Without any second thought, I will give Croma Campus 10/10. Their placement department is highly proactive. I remember they started scheduling interviews for me from the very next day when I told them my course has been completed. These people are doing a phenomenal job and I highly recommend Croma Campus to everyone."



Shams Khan

"Croma Campus is doing a phenomenal job in the IT training industry. The reason why I decided to join their training program was that they provide quality training at very a nominal price. Plus, the online training mode was also a factor due to which I decided to join the training program of Croma Campus as I didn't want to attend physical classes."



|Meet Our Team



Sales Team

Our Sales team is highly passionate, emphatic, positive attitude, great listening skills, ability to deliver quick solutions, and they are multitasker too. Our team always remains up-to-date about all the latest technologies and market trends. With effective communication skills, they always work to deliver the right information to customers when it is needed.

Product Team

Our product team is highly functional and collaborative working together to achieve the common outcome of designing exceptional digital experiences. Each of our members is a contributor to help us achieve success in long-run. Sitting at the high-end of technology and innovation, team helps to deliver high-end customer experiences and always comes out with a big idea as a game-changing plan.



Marketing Team

Our Marketing team works as gladiators and helps us to achieve business success in all possible ways. They are included in almost everything either it is building a brand, creating brand awareness, promoting products or services, delivering trailblazing customer experiences or increasing engagement at public forums. They are the true backbone of the Company.

Content Team

Our content team is responsible for ideation, creation, optimization, and distribution of content throughout the company. The team always starts its work with a strategy, how to create high-quality contents, and how to promote or share the content. Our in-house content team help us to produce all types of contents either they are educational content pieces, marketing content, SEO content, or any other forms too.



Customer Access Team

This is the team that has actually been taken up us from reactive state to a pro-active state. The team utilizes high-valued solutions to satisfy customers in all possible ways. It is truly said that no company can succeed if your customers are not satisfied. And our customer success team is dedicatedly working to keep all the customers satisfied and we always consider our customer feedback on priority.

HR Team

Our HR team is committed to provide high-end solutions to employees as they require. Our HR team has the right skills and knowledge to make sure that the HR department can always be legally and strategically successful. They know how to keep employees motivated all the time with the best HR policies and fun activities too from time to time.



Glimpse Of Our Office

Look **Who We are**

Our office's infrastructure comprises all the necessary software and network resources that are required to deliver IT & Design, Human Resources, Digital Marketing, and training services.

We are well-equipped with bright designed work bays for employees and managers having separate cabins with spacious cafeteria and training classrooms.



About Croma Campus

“Our Mission is to Build Nation through Education & Beyond Limitation.”



#1 Asia's Leading
Edtech Company

Croma Campus Training & Development Private Limited is an education platform providing rigorous industry-relevant programs designed and delivered in collaboration with world-class faculty, industry & Infrastructure. In the past 15 years we have trained 18000+ candidates and out of which we are able to place 12000+ professionals in various industries successfully.

We Are
Affiliated
With Different
Partners



We're Here to Help –
Reach Out to Our Global Offices

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