

Transform you, Transform your

Future with

Data science Excellence

Certificate Programme In Data
Science with Machine Learning

6 Months | Live Online Sessions

PROGRAMME OVERVIEW

The demand for data scientists and machine learning engineers is soaring in the global landscape, with the United States at the forefront of this technological revolution. The USA's data science and machine learning market is anticipated to reach a staggering \$522.9 billion by 2026, capturing 48% of the global big data market by the same year. The nation currently boasts a workforce of over 250,000 skilled data scientists and machine learning engineers, reflecting the significance of these roles in the American workforce. The average salary for a data scientist in the United States stands at \$124,914 per year*. In the United States, key industries leading the charge in hiring data scientists and machine learning engineers include Information Technology (IT), insurance, retail and e-commerce, healthcare, manufacturing, and media and entertainment.

For those aspiring to thrive in this dynamic global landscape, the Data Science and Machine Learning Programme by Digicrome presents a six-month live online program. This comprehensive initiative is designed to make participants industry-ready, providing an in-depth understanding of in-demand data science and machine learning tools and techniques using Python. The program's industry-oriented curriculum covers essential aspects such as statistics for data science, optimization formulations with ML, deep learning, and effective data storytelling. Participants will also gain hands-on experience with tools like Python through real-world case study discussions.



FORMAT

Online (Recorded Video Lectures + Interactive Mentored Learning)



LEARNING SUPPORT

Learning Management System (LMS) + Industry Mentor



TIME COMMITMENT

4-5 Hours per Week



DURATION

6 Months



PROJECTS

5+ Hands-on Projects



KEY FACTS

Number of Data Science jobs to increase by- 28% through 2026.

The U.S. Bureau of Labor Statistics

Data Science among top 20 fastest growing occupations.

U.S. Bureau of Labor Statistics

In a recent survey conducted by Analytics Insight, by 2021, there will be 3,037,809 new job openings in data science, worldwide.

Analytics Insight

The global market of Big Data is forecast to grow at a CAGR of 10.9% from US\$179.6 billion in 2019 to US\$301.5 billion in 2023.

Analytics Insight

WHO IS THIS PROGRAMME FOR?

This programme is best suited for:

- ▶ Early and mid-level Professionals interested in gaining a relevant and cutting-edge perspective on data science and ML for better career prospects
- ▶ Professionals who oversee software development and machine learning projects with a keen interest in developing a data-driven decision-making approach and those looking to apply data science and ML to enhance their business growth

How you'll learn

The course is broken up into manageable, weekly units called lessons.



Work through downloadable content and online instructional material.



Clarify your doubts and practice on live data-sets with your mentor on the weekend.



Enjoy a wide range of interactive content, including video lectures, coding challenges, hackathons, and presentations.

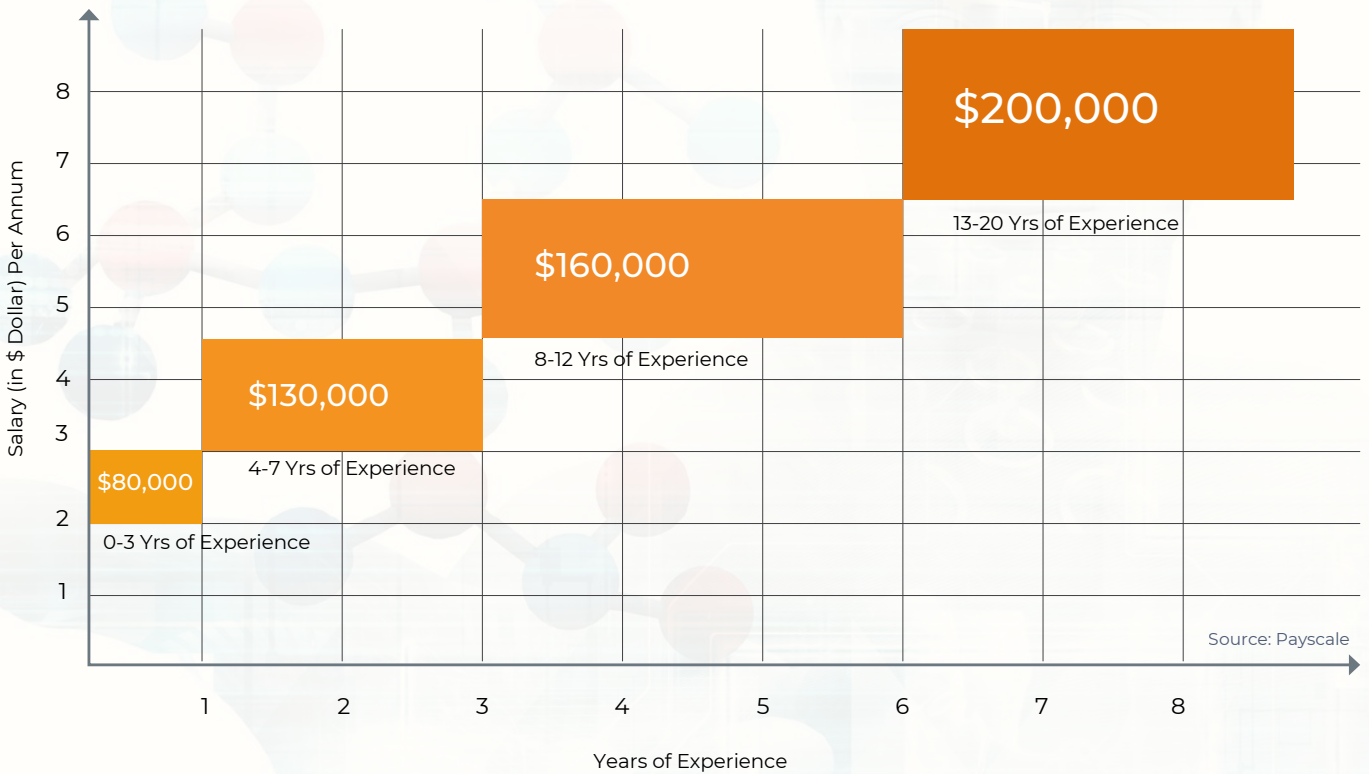


Investigate real-world case studies.



Apply what you learn each week in quizzes, coding challenges, and ongoing project submissions, sharpening your ability to solve real-world problems.

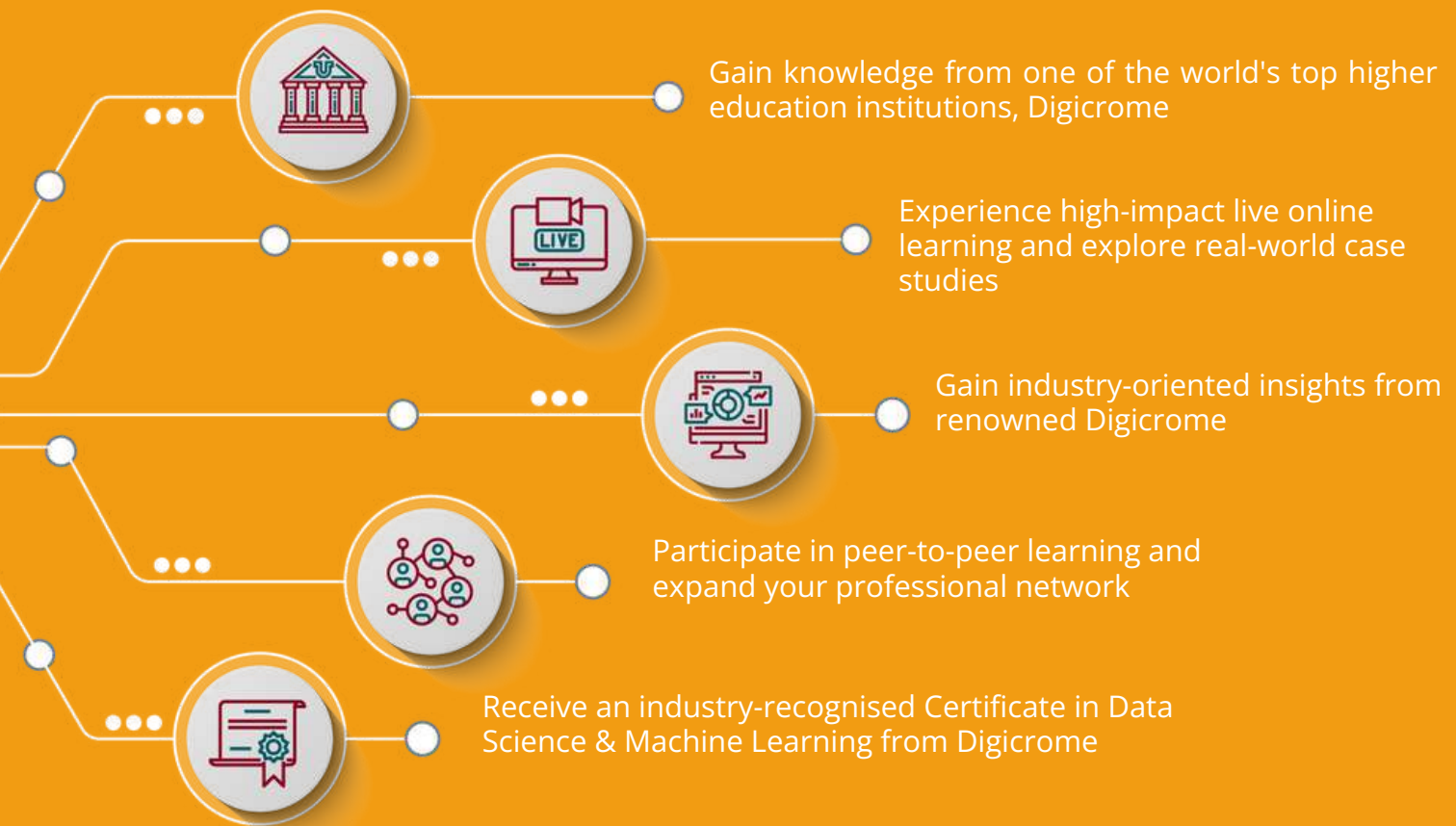
Careers in Data Science (ML, AI, DL)



Some of the job roles associated with Data Science include Data Analyst, Data Science Generalist, Data Scientist, ML Analyst, ML Engineer, ML Scientist, AI Analyst, AI Engineer, AI/ML Developer, Business Intelligence Analyst, Associate Data Scientist, Data Architect, Business Intelligence Developer, Deep Learning Engineer, Decision Scientist, Data Visualization Specialist, and many others.



PROGRAMME HIGHLIGHTS



PROGRAMME MODULES

The programme is taught by Digicrome's renowned faculty in an immersive learning pedagogy that combines lectures, tutorials, and hands-on exercises. You will have the opportunity to interact with your peers and faculty in a collaborative online learning environment.

COURSE DURATION

6 Months of Live Training

24 Weeks: 96 HOURS

MODULE 1

Data Science Essentials (Weeks 1-4)

Week 1-2: Fundamentals of Python*

Week 3-4: Fundamentals of Mathematics

- Introduction to Python programming
- Data types, variables, and basic operations
- Control flow and loops
- Functions and modules

- Linear Algebra and its applications in data science
- Probability and its role in statistics
- Measures and Descriptors of Data
- Distributions and Estimation
- Exploratory Data Analysis
- Hypothesis Testing and Evaluation



MODULE 2

Communicating Effectively with Data (Weeks 5-8)

Week 5-6: Data and Information Systems

- Introduction to data systems and databases
- Data retrieval and manipulation with SQL
- Working with APIs for data retrieval

Week 7-8: Storytelling with Data

- Principles of effective data visualization
- Tools for data visualization (e.g., Matplotlib, Seaborn)
- Designing Business Dashboards

MODULE 3

Optimisation for Machine Learning (Weeks 9-12)

Week 9-10: Optimization's Formulations

- Introduction to optimization problems
- Formulating optimization problems in machine learning

11-12: Gradient and Search-Based Optimisation

- Gradient descent and its variants
- Search-based optimization techniques
- Linear, Quadratic, and Nonlinear Programming
- Multi-objective and Multi-Criteria Decision Making - Evolutionary Tools

MODULE 4

Machine Learning (Weeks 13-16)

Week 13-14: Regression and Derivatives

- Linear and logistic regression
- Derivatives and their role in machine learning

Week 15-16: Trees and Random Forests

- Decision trees and ensemble methods
- Support Vector Machines
- Clustering - Hierarchical K-means Clustering
- Dimensionality Reduction: PCA

MODULE 5

Deep Learning (Weeks 17-20)

Week 17-18: Deep Feedforward Neural Nets

- Introduction to neural networks
- Building and training deep feedforward networks

Week 19-20: Convolutional Neural Nets and LSTM Networks

- Convolutional Neural Networks for image data
- Long Short-Term Memory Networks for sequential data

Week 21-22: Introduction to GAN, Reinforcement Learning, and ML Ops

Week 23-24: Project Work and Presentations

- Overview of Generative Adversarial Networks (GAN)
- Introduction to Reinforcement Learning
- ML Ops and AI Governance

- Integrative Exercise: Applying learned concepts to a real-world project
- Project presentations and feedback

Note:

- Modules/ topics are indicative only, and the suggested time and sequence may be dropped/ modified/ adapted to fit the total programme hours. Case studies, real world examples and numerical illustrations are an integral part of multiple modules included in the course.
 -The primary mode of learning for this programme is via live online sessions with faculty members. Post session video recordings may or may not be made available, at the discretion of faculty members.
 -Emeritus or the institute does not guarantee availability of any session recordings.

*Fundamentals of Python will be taught via recorded sessions. The faculty will be conducting Q/A on the same.

Weekends Classes

Saturday & Sunday

02

Hours each

24

Total Weeks

48

Online Class

96

Totals Hours



Please get in touch with a Program Advisor for a detailed module-wise breakdown of the course curriculum at support@digicrome.com

A STRUCTURED LEARNING JOURNEY



View & Learn Recorded Content

Consume recorded video lectures by Digicrome & industry experts over the week.



Engage in a Mentor Session

Clarify your doubts and practice on live data-sets with your mentor on the weekend.



Complete a Hands- On Project

Work on a real-world problem to apply concepts and techniques learnt in the module.



Explore Specialized Tracks

Explore specialized tracks in advanced ML, deep learning, or domain-specific applications to align with your interests and career goals.

PROGRAM MANAGER: YOUR PERSONAL GUIDE

Your Program Manager will assist you through the learning journey to ensure you achieve your learning objectives. They will act as your sole point of contact during the program, supporting you by ensuring you receive the appropriate and timely assistance from the ecosystem. Along with monitoring your progress, they will be there to give you the necessary encouragement to ensure your success.



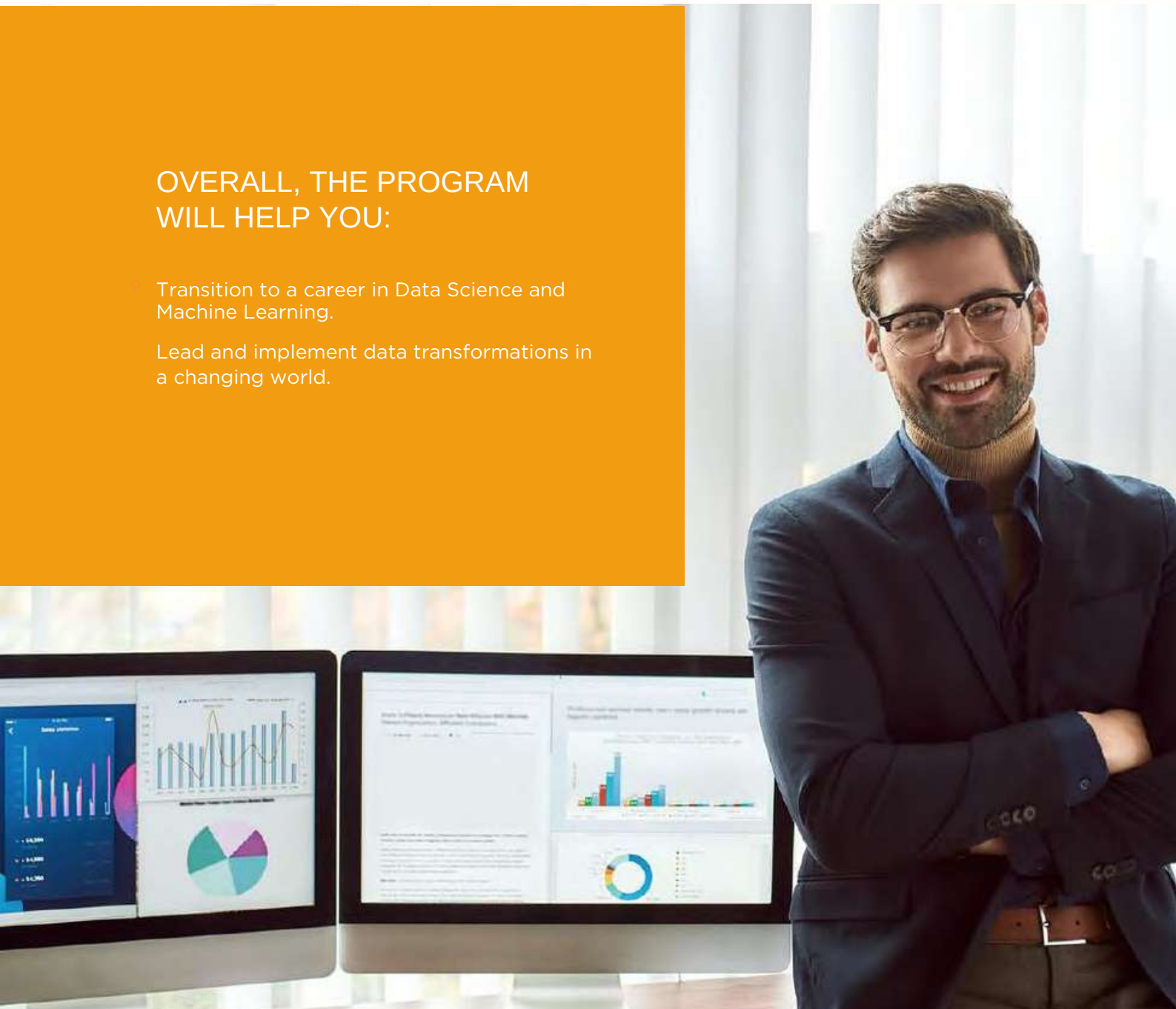
THE PROGRAM IS FOR YOU, IF YOU:

- Like solving problems in a structured manner.
- Love extracting insights from numbers to create insightful stories.
- Want to impact business decisions through evidence gathered from data.
- Want to inculcate 21st century competencies and build a strong career through them.
- Want to keep pace with a business world that's becoming increasingly data-driven.

OVERALL, THE PROGRAM WILL HELP YOU:

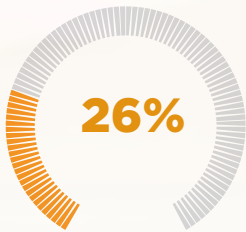
Transition to a career in Data Science and Machine Learning.

Lead and implement data transformations in a changing world.



PAST LEARNER PROFILES

Each of the cohorts represent a diverse mix of work experience, industries, and geographies - guaranteeing a truly global and eclectic learning experience. Below is an indicative mix of where past learners have come from.



0-3 Years



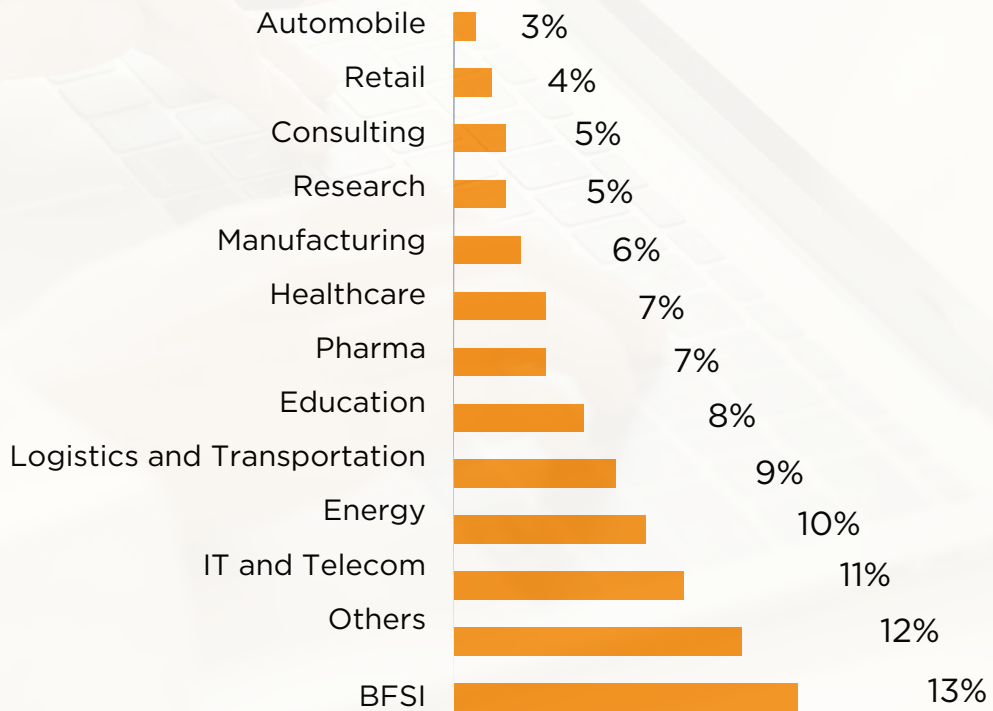
3-8 Years



8-15 Years



15+ Years



CAREER SUPPORT

When you are beginning afresh in a field, insights from someone on the inside can help you get a headstart. Apart from the immediate result of landing a job, career coaches work with you on the long haul – building your strengths, working on gaps, and developing a strategy to achieve your career goals.

OUR ALUMNI WORK AT



and many more...

LAND YOUR DREAM JOB WITH:

1:1 CAREER SESSIONS

Interact personally with industry professionals to get valuable insights and guidance.

RESUME & LINKEDIN PROFILE REVIEW

Present yourself in the best light through assets that truly showcase your strengths.

INTERVIEW PREPARATION

Get an insiders' perspective to understand what recruiters look for.

E-PORTFOLIO

Build an industry-ready portfolio to showcase your mastery of skills and tools.



About Digicrome

Digicrome is the world's #1 online bootcamp education, dedicated to empowering learners through intensive and highly specialized training. Our primary focus is on the latest emerging technologies and processes that are reshaping the digital landscape. All of this is delivered at a significantly reduced cost and time compared to traditional approaches. To date, over one million professionals and 2000 corporate training organizations have successfully utilized our award-winning programs to realize and exceed their career and business objectives.



ADMISSION PROCESS

ELIGIBILITY

- BE/B.Tech (from any branch), BBA/MBA, MCA/M.Tech, B.Com, B.Sc (in any branch)
- Bachelor's or Undergraduate degree with at least 50% aggregate marks or equivalent.
- No programming experience required.

Fee Details

Certificate Programme In Data Science with Machine Learning

~~USD \$2,500~~

Offer price

USD \$1,600

READY TO ADVANCE
YOUR CAREER?

APPLY NOW



PROGRAMME DETAILS

ADMISSION DETAILS

- ▶ 6 Month Program | 96+ hours of learning content
- ▶ 5 real-world graded projects and 8+ real-world case studies
- ▶ 1-month capstone project guided by an industry expert
- ▶ Certificate from Digicrome
- ▶ Topic Wise Case-Studies Provided
- ▶ Dedicated career support and resume-building sessions
- ▶ By 500+ hiring companies

PROGRAM FEE

~~USD \$2,500~~

Offer price

USD \$1,600

PAYMENT SCHEDULE

Registration Fee: **USD \$ 100**

Instalment 1	Instalment 2	Instalment 3	Instalment 4	Instalment 5
\$300	\$300	\$300	\$300	\$300

Please get in touch with a Program Advisor for more details on flexible fee payments

Have questions about how it fits in with your career goals?
Speak to our program advisor



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Disclaimer : All programs are offered on a non-credit basis and are not transferable to a degree.