ABOUT **THE PROGRAM**

Hundreds of online courses exist today. What many of them lack, however, is a commitment to helping you translate your knowledge into something tangible - the ability to excel and grow as a Data Science professional. To tackle this, the course has been designed to give you the academic rigor, learning support, and peer interaction of a full-time course with the flexibility of an online program. The program uniquely combines a comprehensive curriculum, covering the most widely-used tools and techniques in the industry, with a hands-on learning approach. A structured learning journey keeps you on track throughout as you achieve your weekly learning milestones with your mentor and benefit from their rich professional experience.

Following a learn by doing pedagogy, the program offers you the opportunity to apply your skills and knowledge in real-time every week through interactive mentor-led practice sessions, quizzes, assignments, and hands-on projects. As you do so, you come to truly appreciate the nuances of data and build your portfolio in the process. On a whole, the program empowers you with the skills, body of work,
and job market insights you need to find the right career opportunities in Data Science or lead data science efforts in your current organization. All this comes with credibility, global advantage and academic leadership of ......

FORMAT
Online (Recorded Video Lectures + Interactive Mentored Learning)

LEARNING SUPPORT
Dedicated Program Manager + Industry Mentor

TIME COMMITMENT
8-10 Hours per Week

DURATION
Three months

PROJECTS
7+ Hands-on Projects

#3

#6

The college has also been consistently ranked among the top 10 public colleges by GES (Ghana Education Service) & World Report, with our programs ranked in the top 10 nationally. With a proven track record of successes, cutting-edge research and teaching methods,

you can be confident that you are learning from the best of the best.

KEY FACTS

NUMBER OF DATA SCIENCE JOBS TO INCREASE BY ~28% THROUGH 2026.

The U.S. Bureau of Labor Statistics

3 MILLION JOB OPENINGS IN DATA SCIENCE IN 2021.

Analytics Insight

76% OF BUSINESSES PLAN TO INCREASE SPENDING OVER THE NEXT TWO YEARS ON DATA ANALYTICS CAPABILITIES.

Deloitte Access Economics Report

DATA SCIENCE AMONG TOP 20 FASTEST GROWING OCCUPATIONS
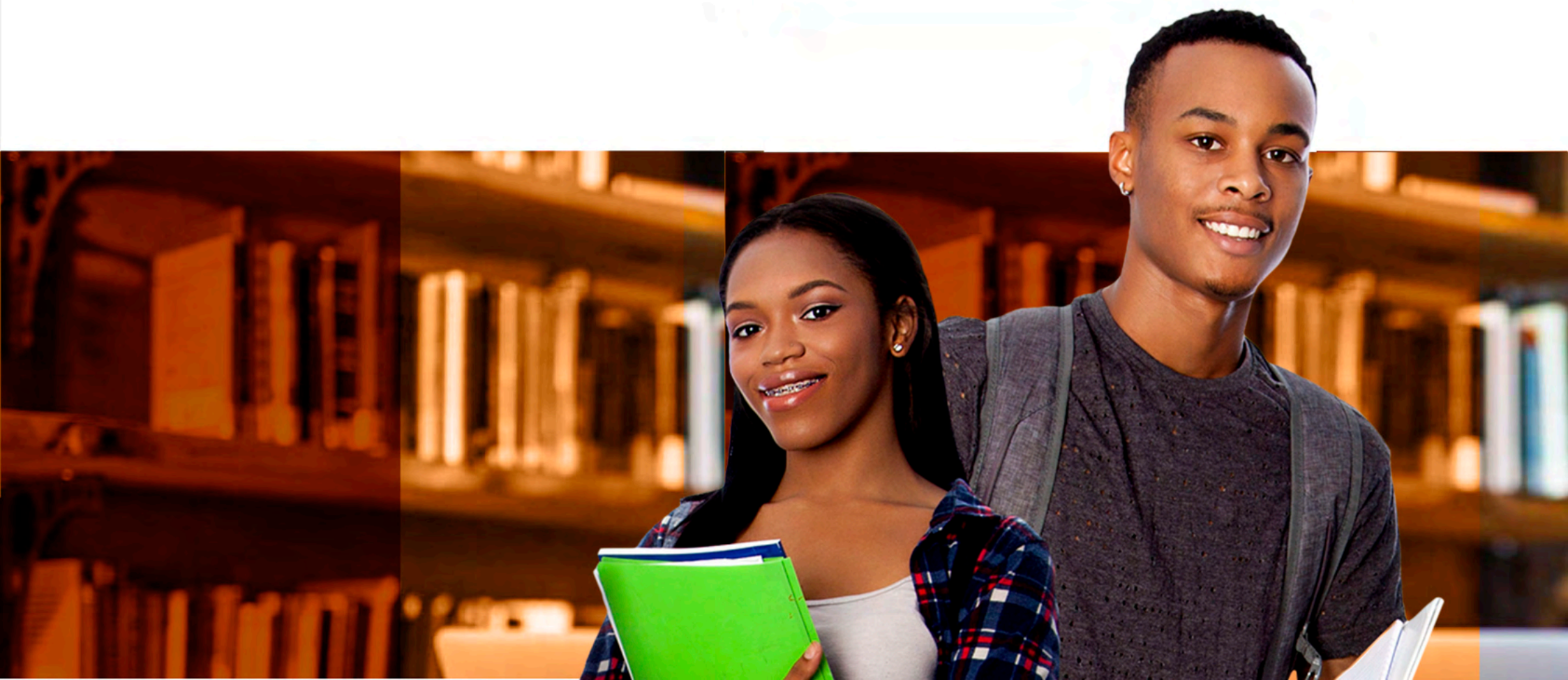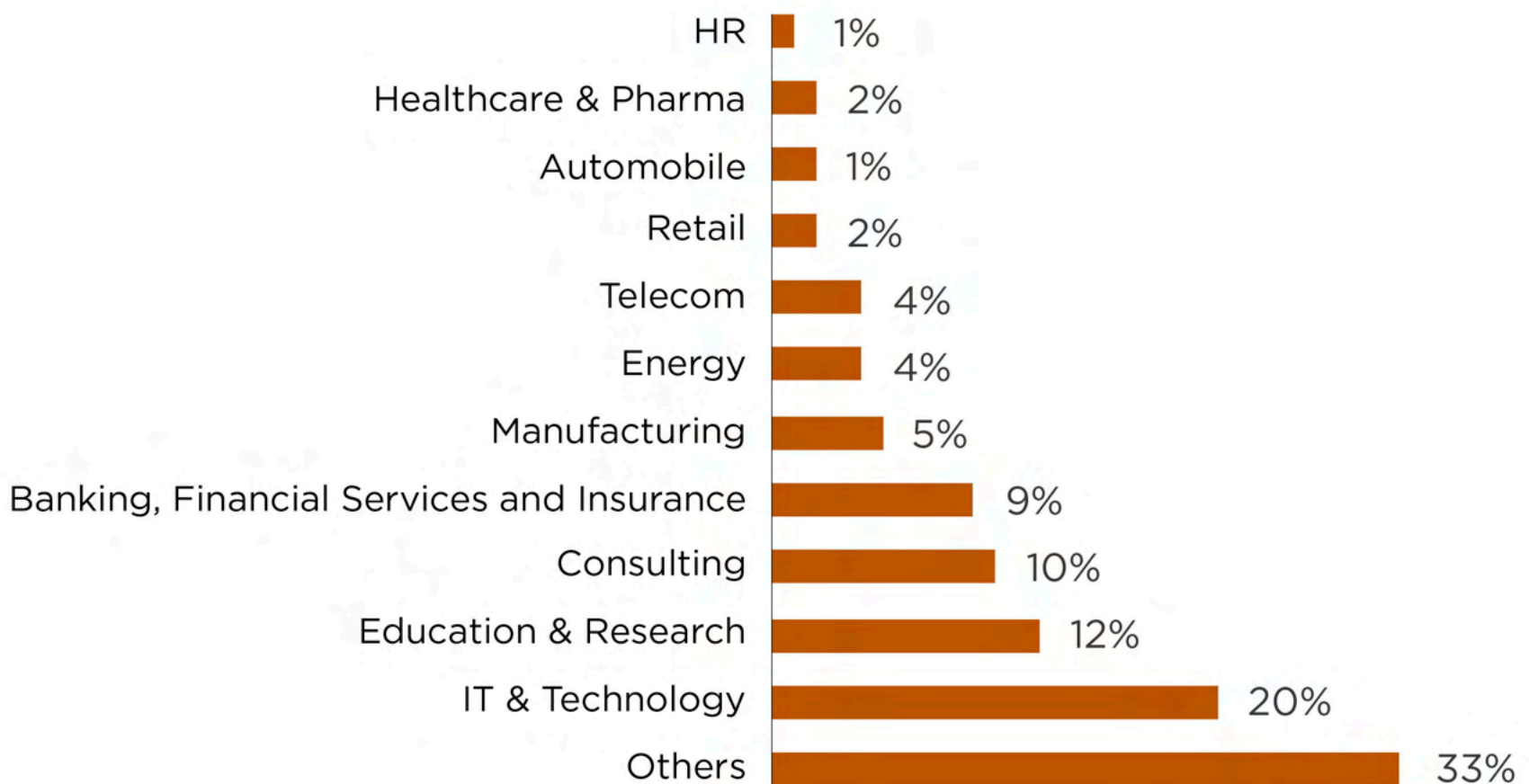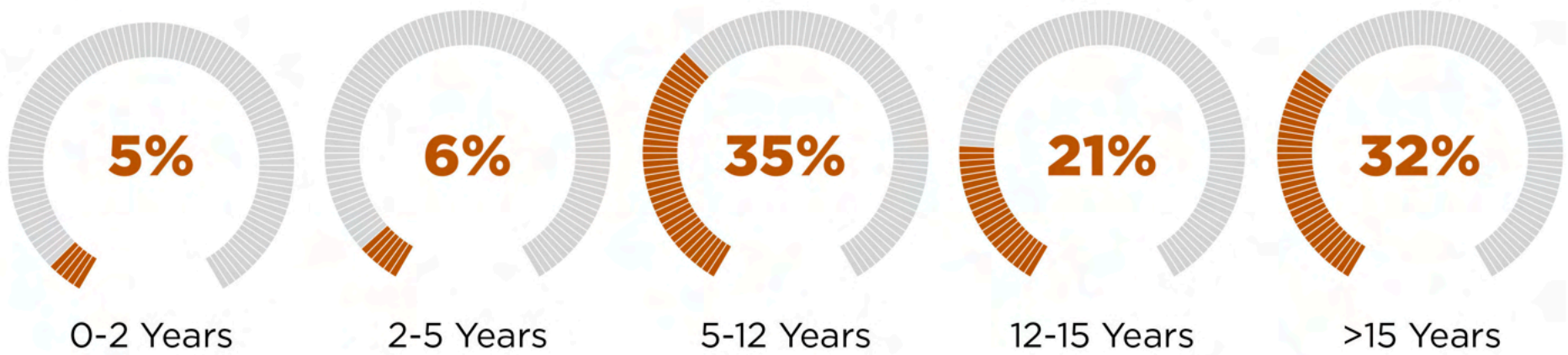
U.S. Bureau of Labor Statistics

- 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 Analytics.

- Lead and implement changes in data at your own company.
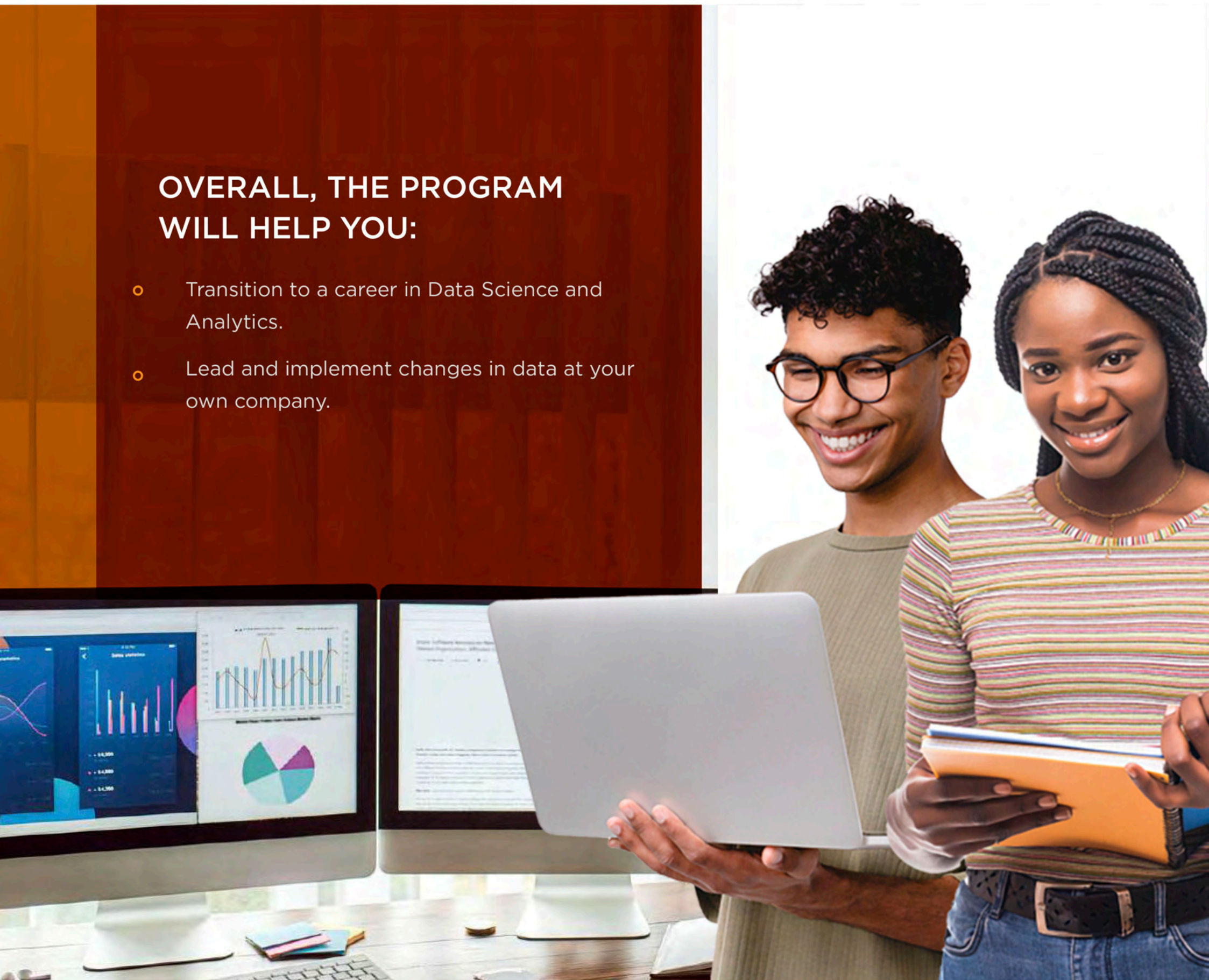
Each of the cohorts represent a diverse mix of work experience, industries, and geographies - guaranteeing a truly global and eclectic learning experience. Below is an indicative mix of where past learners have come from.

5%	6%	35%	21%	32%
0-2 Years	2-5 Years	5-12 Years	12-15 Years	>15 Years

Industry	Percentage
HR	1%
Healthcare & Pharma	2%
Automobile	1%
Retail	2%
Telecom	4%
Energy	4%
Manufacturing	5%
Banking, Financial Services and Insurance	9%
Consulting	10%
Education & Research	12%
IT & Technology	20%
Others	33%

KEY **LEARNING OUTCOMES**

1   Build your expertise in the most widely-used Analytics tools and technologies.

2   Develop the ability to independently solve business problems using Analytics and Data Science.

3   Understand the applications and implications of Data Science in different industries.

4   Learn how to extract strategic business insights from data and efficiently communicate them to stakeholders.

5   Build models to predict future trends and use them to inform business strategy.

6   Build a substantial body of work and an industry-ready portfolio in Data Science and Analytics.

COURSE
CURRICULUM

MODULE 0 **PRE-WORK**

Learn the fundamentals of Python and programming to lay the foundations on which the rest of the course will be built. The module is released on enrollment.

MODULE 1 **PYTHON FOUNDATIONS**

Build the foundational skills for Data Analysis with Python, such as importing, reading, manipulating, and visualizing data.

Sample Project 1

Perform Exploratory Data Analysis to understand the popularity trends of movie genres and derive patterns in movie viewership.

MODULE 2 — BUSINESS STATISTICS

Understand the role of statistics in helping organizations take effective decisions, learn its most widely-used tools and learn to solve business problems using analysis, data interpretation and experiments.

Sample Project 2

Help an insurance agency identify important patterns in data through statistical methods.

MODULE 3 — SUPERVISED LEARNING

Explore the fundamentals of Supervised Machine Learning, its key concepts and types. You will also learn how to pre-process data to prepare it for modelling.

Sample Project 3

Utilise historical data of a banking firm's loan defaulters to predict expected loss for a given customer.

MODULE 4 — SUPERVISED LEARNING CLASSIFICATION

Learn the conceptual frameworks of building classification models for accurate prediction in business contexts through popular ML approaches such as Logistic Regression and Decision Trees.

Sample Project 4

Identify potential loan customers for a bank by building a classification model that identifies candidates with a higher probability of purchasing a loan.

MODULE 5 — ENSEMBLE TECHNIQUES

Ensemble methods help to improve the predictive performance of Machine Learning models. In this course, you will learn about Ensemble methods such as 'Random Forest' that combine several Machine Learning techniques into one predictive model in order to decrease variance, bias, or improve predictions.

Sample Project 5

Build a model to assist the marketing team of a company in identifying potential customers for a term deposit subscription.

MODULE 6 — MODEL TUNING

Model building is an iterative process. Employing Feature Engineering techniques along with a careful model selection exercise helps to improve the model. Further, tuning the model is an important step to arrive at the best possible result. This module talks about the steps and processes around these.

Sample Project 6

Perform Feature Engineering and Model Tuning on a model designed to predict the strength of construction material to enhance accuracy.

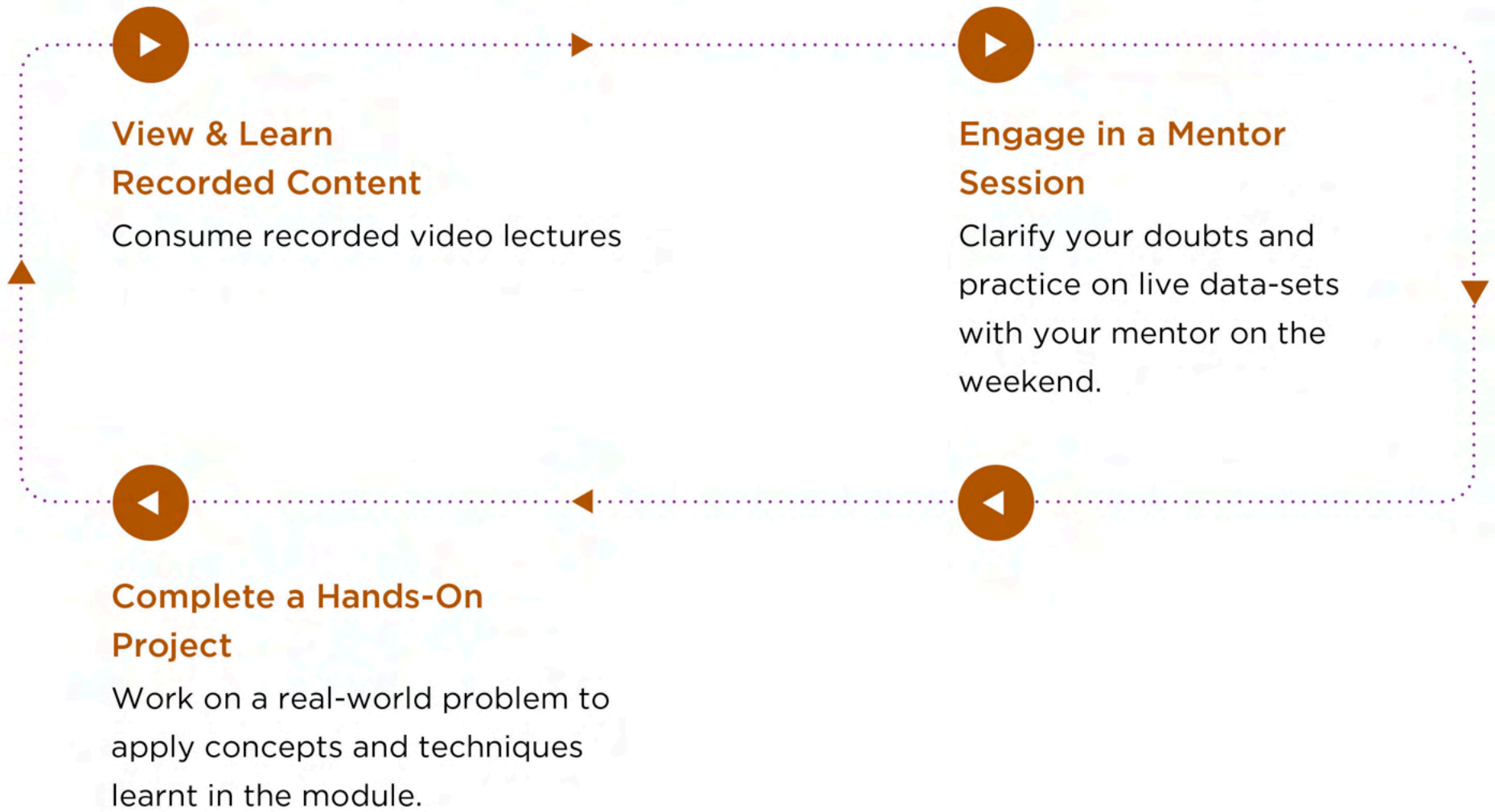## MODULE 7 — UNSUPERVISED LEARNING

Unsupervised Learning finds hidden patterns or intrinsic structures in data. In this course, you will learn about commonly-used clustering techniques like K-Means Clustering and Hierarchical Clustering.

Sample Project 7

Identify different segments from a bank's existing customer pool based on their spending patterns as well as past interactions with the bank.

A STRUCTURED
LEARNING JOURNEY

View & Learn
Recorded Content

Consume recorded video lectures

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.

PROGRAM MANAGER: YOUR PERSONAL GUIDE

Your Program Manager is your single point of contact for all academic and non-academic queries. Whether you are stuck on a topic or get a sudden request for work travel, the Program Manager will hand-hold and guide you through all situations, leaving no query unanswered. They will also keep a track of your learning journey and will give you personalized feedback and required nudges to ensure your success.
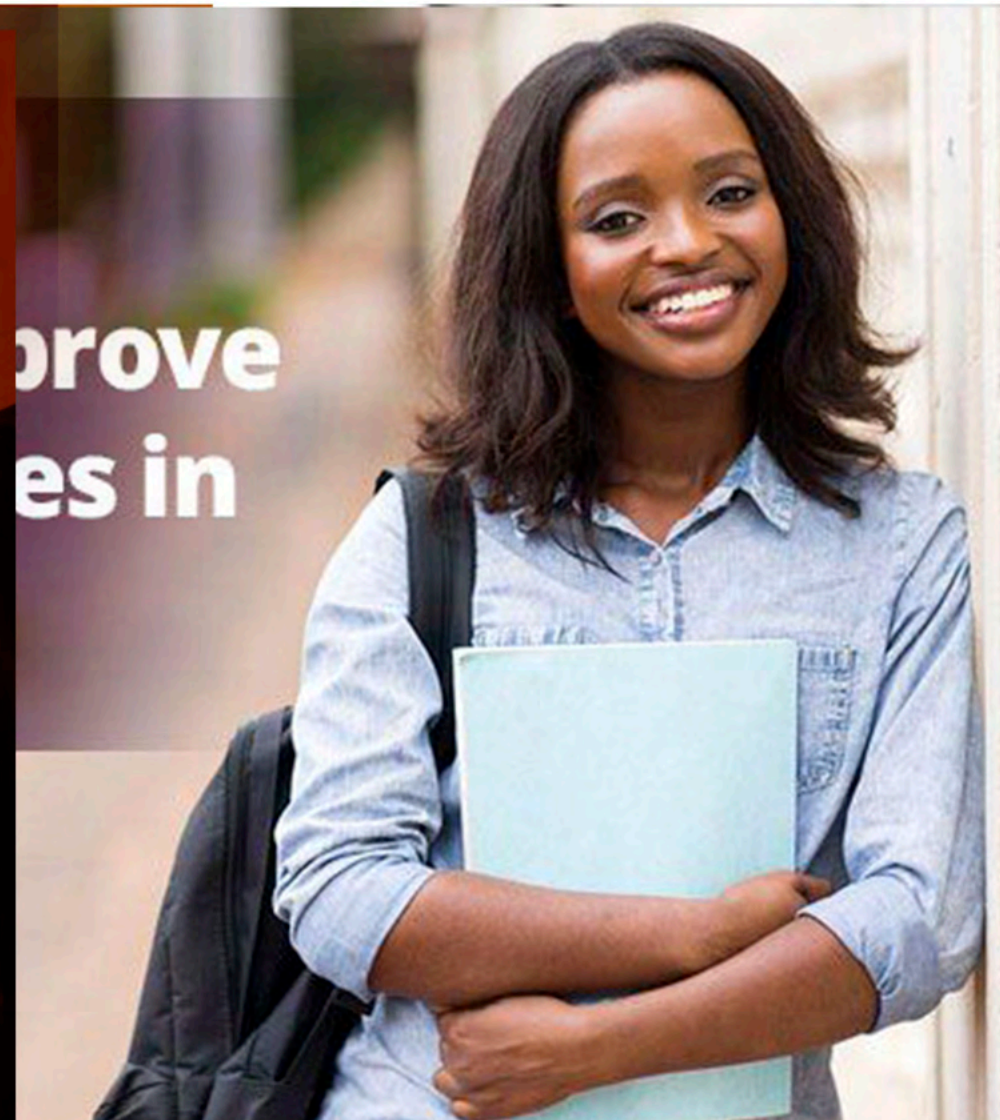
ADMISSION
PROCESS

ELIGIBILITY

○ Bachelor's or Undergraduate degree with at least 50% aggregate marks or equivalent.

○ No programming experience required.

APPLICATION PROCESS

Application Form

Register by filling up the online application form. The program follows a rolling process, so we encourage you to apply early.

Shortlisting and Panel Review

A panel will review your application to determine your fit with the program. They will evaluate you on your academic performance, work experience, and motivation.

Interview/Screening

If shortlisted, you will go through a telephonic screening interview (This may be waived for candidates with strong profiles and experience).

Admissions Offer

After a final admissions committee review, you will receive an offer for a seat in the upcoming cohort of the program.

PROGRAM FEE

GHC 4,800.00