



# Business Intelligence and Visualization Analyst: Profile Data Scientist

**Duration** | 8 months

**Delivery Methodology** | Online / In-class

## Program Overview

Data Scientists collaborate closely with business stakeholders to identify data-related strategies to achieve their goals. They construct algorithms and prediction models to extract the data the organization requires.

Furthermore, data scientists design data modelling processes, assist in data analysis and collaborate with others to share insights.

The data scientist curriculum offers in-depth instruction in data science and machine learning along with practical experience using important tools and technologies, such as Python, PowerBI, machine learning, algorithms and Tensorflow.

## Course Outline

- 1** | Introduction to Data Science, Business Intelligence and Big data
  - Various roles in data world and their work.
  - End to end pipeline stages
  - Data analytics methods
- 2** | Fundamentals of SQL Programming
  - CRUD operations, DDL, DML statements
  - Views and procedures
- 3** | Data Visualization and Reporting Tool
  - Analyzing the data using the Power BI tool
  - Power Query, DAX, and Data Cleaning
  - Creating dashboards
- 4** | Fundamentals of Python Programming
  - Functional programming, Data types
  - Object Oriented Programming
  - Libraries like NumPy, pandas, matplotlib and Seaborn
- 5** | Machine Learning
  - Various Machine Learning algorithms along with Statistics
  - Supervised and unsupervised learning
  - CNN, ANN, GAN's
- 6** | Applied Data Science with Python
  - Advanced python libraries like Scikit learn, TensorFlow, PyTorch to implement machine learning algorithms
- 7** | Career Development
  - Resume and Cover letter Preparation
  - Interview preparation
- 8** | Project
  - Practical application of all the above courses

## Career Options



## Skills you Acquire

- Proficiency in creating compelling visualizations and dashboards using Power BI, enabling effective communication of insights from data.
- Ability to work with databases proficiently, including data retrieval, manipulation, and management using SQL.
- Mastery in Python programming for data analysis, manipulation, and exploration, utilizing libraries like Pandas, NumPy, and Scikit-Learn for various data science tasks.
- Understanding and application of ML algorithms for predictive modeling, classification, clustering, and regression using Python libraries like Scikit-Learn, TensorFlow, or Keras.
- Skills in cleaning and preprocessing raw data to make it suitable for analysis, including handling missing values, outliers, and data normalization.
- In-depth knowledge of Python tailored specifically for data science applications, incorporating advanced techniques like deep learning, natural language processing (NLP).
- Understanding statistical concepts and conducting experiments for hypothesis testing
- Cultivating strong problem-solving skills and critical thinking to approach complex data-related challenges systematically and derive actionable insights.

## Industry Overview

The global data science platform market was valued at USD 95.31 billion in 2021 and is expected to grow at a CAGR of 27.6% during the forecast period. The growth of the industry is primarily driven by a substantial rise in the big data industry across the globe.

**Tuition: \$10,000 CAD**

**Winter session begins on the 9th of February 2024**  
Talk to an advisor to learn more about our payment plans, financing options, bursaries and tax credits.



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### Why Choose MCIT?

#### 1 Industry Focus

Our curriculum is solely based on the latest industry trends to make sure you are equipped with the right skillsets.

#### 2 Project Based Learning

Your learning is solidified with a project at the end of the course to make you job ready. This project is implemented under the guidance of your instructor

#### 3 Get trained by Domain Experts

The courses are taught by industry experts who have got years of experience in respective domains. This way you shall be learning key concepts from people who have already solved similar problems

#### 4 State of the Art Infrastructure

Every student gets a dedicated VM (Virtual machine) as they join this program to serve their needs in terms of intense computation, access from anywhere.

#### 5 Strong Alumni Network

You are not alone for you have a 5000-member strong Alumni network as you study at MCIT

#### 6 Learn while you work | Earn while you learn

Learn new skills to take your career to next level while continuing your work due to our flexible schedules.

### Financial Aid

#### 1 AFE Loan

Full tuition fee could be covered under AFE loans provided by Quebec Government.

#### 2 Scholarship

On a case-by-case basis, local students can reach out to private bursaries to receive anywhere between \$500 CAD - \$2000 CAD.

Note: For further information about financial aid, please speak to any of our advisors.

### Career Support Services

The Career Center at MCIT is designed to offer students and alumni the opportunity to learn about the Canadian job market and how to sell their skills and experience to successfully find job opportunities. You shall be assisted in learning:

#### 1 Canadian Customs

#### 2 The art of Networking

How to build a professional network

#### 3 Cover Letters Writing

#### 4 CV & Resume Writing

#### 5 Internship Preparation

#### 6 Job Search Checklist

Exploration, Preparation, Implementation

#### 7 LinkedIn Profile

#### 8 Interview Preparation

#### You'll be Job-ready!

### Learning Methodology

Learning Methodology is the central mechanism for learning advancement. It's the core that drives all your expertise and knowledge to attain professional success.

