



# SOMAKODI

BROCHURE

## DATA SCIENCE

Data science is the engine behind modern decision-making, powering everything from personalized recommendations and financial forecasting to healthcare predictions and business intelligence. As organizations across all industries embrace data-driven strategies, the demand for professionals who can analyze, interpret, and communicate insights has grown.

The curriculum is structured to support complete beginners, guiding them step by step toward becoming confident, job-ready data practitioners. Through hands-on projects, real datasets, and exposure to industry-standard tools such as Python, SQL, Pandas, and machine learning libraries, learners develop both technical competency and analytical thinking. Each module emphasizes practical problem-solving, enabling students to uncover patterns, build predictive models, and transform raw data into meaningful insights.

By the end of the program, you will have mastered key skills in data cleaning, exploratory data analysis, visualization, machine learning, and statistical reasoning, know how to present insights effectively and make data-driven recommendations. Whether you're aiming to start a career in data science, transition from another field, or enhance your analytical capabilities, this program equips you with everything you need to excel in one of the fastest-growing and most impactful fields in technology.

## PREREQUISITES

This is a beginner-friendly Data Science program with no prior experience required. While some students may have explored data science independently or worked in tech-related roles, no formal background is necessary. Whether you're just starting out or looking to formalize your skills, our curriculum is designed to equip you with the tools, techniques, and best practices that today's data science employers value, including training with Python, SQL, Pandas, Scikit-learn, and data visualization tools like Power BI, and show you how to apply them in real-world scenarios.

Our Admissions Team is available to learn more about your background and career goals to help determine if the Data Science Bootcamp is the right fit for you.

## Why learn Data Science

### 1. High Demand Career

As one of the most sought-after skills globally, companies of all sizes, from startups to multinational corporations, are hiring data professionals to help them make smarter decisions. This demand translates into competitive salaries and strong job security.

### 3. Make Smarter Decisions with Data

Organizations collect massive amounts of data, but data is only valuable if you know how to use it. Data science helps you turn raw data into insights that you can use to solve real-world problems, improve business strategies, and drive innovation using evidence-based decisions.

### 5. Beginner-Friendly

Many data science learners begin with no experience at all. With the right guidance and hands-on practice using tools like Python and SQL, you can build a solid foundation and launch a meaningful career within months.

### 2. Applicable Across All Industries

Whether you're interested in healthcare, finance, retail, agriculture, education, or technology, data is everywhere. Learning data science gives you the flexibility to work in any sector that interests you, analyzing trends, optimizing systems, and making impactful contributions.

### 4. A Future-Proof and Flexible Career

As automation and AI reshape the job market, data literacy is becoming a must-have skill. Whether you want to work in a traditional job, become a freelancer, or start your own data-driven project, data science gives you future-proof, flexible career options.

### 6. Creativity and Real-World Impact

It's a perfect career for curious minds. You'll keep learning new technologies, tools, and tactics as threats evolve. If you enjoy puzzles, research, or problem-solving, Data Science offers a lifetime of challenges.

## Why Study at Somakodi School

Somakodi is one of the most successful tech boot camps in Kenya. Join us and get top-tier learning & student experience.



Professional and experienced team



Practical hands-on learning



Enhanced digital-first learning



Financial Aid Opportunities



Immersive Curriculum



Job placement support

## Who is this course for?

- **Beginners with No Tech Background:**

Individuals curious about Data Science with no prior experience; Career changers from non-tech fields (e.g., education, business, law, etc.); Recent graduates exploring tech careers.

- **IT Professionals Looking to Upskill:**

Already in IT, software development, or tech support? Add data science and machine learning to your skill set to become more competitive and open up new opportunities for growth..

- **Startup & SME Employees, Entrepreneurs**

Want to use data to grow your business or offer data services to clients? Learn how to collect, analyze, and present data to make smarter decisions and drive better results.

- **University Students and Recent Graduates**

If you're studying or have recently completed a degree in any field – business, economics, health, science, or humanities – this course will give you the hands-on skills employers look for, beyond what traditional degrees teach.

## What are the requirements for learners?

- **Computer Literacy**

Comfortable using a computer (installing software, navigating file systems, using a browser). Familiarity with operating systems (Windows, Linux, macOS is a plus).

- **Tertiary education**

Have a university/college education(ongoing or graduated)

- **Reliable Internet Access and a Personal Computer**

A laptop or desktop with at least 4GB RAM (preferred), and a stable internet connection for online learning, labs, and tools.

- **Basic Understanding of Math & Statistics**

You should be comfortable with: Percentages and averages, Reading graphs and charts, Basic problem-solving and logical thinking. We'll introduce statistical concepts like mean, median, standard deviation, and probability during the course – so prior deep knowledge is not required.

## Somakodi Data Science Program Overview

- **Course Model** : Live classes and 100% Online
- **Learning Duration** : 6 - Months
- **Classes Schedule** : Monday - Friday
- **Class Timings** : Flexible Schedule
- **Program Fees** : Kes. 75,000/=

**Throughout this expert-designed program, you'll:**

- ✓ **Data Science Fundamentals:** Understand what data science is, its real-world applications, and the end-to-end workflow from data collection to prediction.
- 💻 **Essential Tools & Technologies:** Gain hands-on experience with Python, Jupyter Notebooks, Excel, SQL, and Git/GitHub for coding, data handling, and collaboration.
- 📊 **Data Analysis & Wrangling:** Learn to clean, transform, and explore data using libraries like Pandas and NumPy, handling messy datasets to extract meaningful insights.
- 📈 **Data Visualization:** Master creating compelling charts, graphs, and dashboards with Matplotlib, Seaborn, and Power BI to communicate data stories effectively.
- ⚡ **Statistics & Probability:** Grasp key concepts like descriptive statistics, probability, and hypothesis testing to analyze data rigorously and make informed conclusions.
- 🤖 **Machine Learning Basics:** Explore supervised and unsupervised learning, build simple predictive models with Scikit-learn, and evaluate model performance.
- 🌟 **Real-World Projects:** Apply your skills on practical datasets across industries, completing mini-projects and a final capstone to build your professional portfolio.
- 👩‍💻 **Career Readiness & Soft Skills:** Get guidance on resumes, LinkedIn, interviews, and effective communication to confidently pursue data science roles or freelance opportunities.

## CURRICULUM OVERVIEW

### Onboarding

- Course Overview
- System configurations and installations
- Digital learning orientation
- Introduction to Data Science Principles

### Foundations of Data Science & Python Programming

- Understand key data science concepts and career opportunities
- Learn Python basics: variables, data types, loops, functions
- Write scripts for data processing and automation

## Data Handling & Cleaning with Pandas and NumPy

- Import and manipulate datasets
- Handle missing or inconsistent data
- Perform calculations and data transformations

## Data Visualization & Communication

- Create charts, graphs, and dashboards with Matplotlib, Seaborn, and Power BI
- Develop skills to present data insights effectively to varied audiences

## Database Management & SQL

- Understand relational databases and structures
- Write SQL queries to extract, filter, and aggregate data
- Work with real-world datasets stored in databases

## Statistics & Exploratory Data Analysis (EDA)

- Learn descriptive statistics and probability fundamentals
- Conduct hypothesis testing and inferential statistics
- Explore data to identify patterns, trends, and anomalies

## Introduction to Machine Learning

- Understand supervised and unsupervised learning models
- Build predictive models using Scikit-learn
- Evaluate model performance with accuracy, confusion matrices, and more

## Real-World Projects & Career Preparation

- Apply skills through hands-on mini-projects and a final capstone project
- Build a professional portfolio to showcase your work
- Receive guidance on resumes, LinkedIn, interviews, and job search strategies



# SOMAKODI SCHOOL ADMISSION

## WHERE LEARNING COMES TO LIFE!

A hub of academic excellence, creativity, and personal growth! We invite prospective students and families to embark on an exciting educational journey with us.

### Why Choose Somakodi School?

- Academic Excellence
- Inclusive Community
- Holistic Development
- State-of-the-Art Facilities

Join Somakodi School and let your educational journey begin

### What are the benefits of online learning?

- Flexibility and Convenience
- Personalized Learning Experience
- Develop Self-Discipline and Tech Skills
- Cost-Effective