Online | Offline

kids Skillonit

For The Future of Rural India

AI Young Data Scientist

Course

2री ते 10वी

पर्यंतच्या विद्यार्थ्यांसाठी

What Students Will Learn

Logic | Python | Pandas | NumPy | Innovation | ML/DL | Big Data

Scan me!

www.skillonit.com



15 Months | Book Your Seat Now | Course

THE 15-MONTH TRANSFORMATION

Month 1-3

- Month 1 — Digital Foundations, Data Curiosity & AI
- Month 2 — Spreadsheets, Surveys & Data Literacy
- Month 3 — Python Foundations for Data

Beginner → Explorer

Month 4-6

- Month 4 — Python Collections, Functions & Mini Analytics
- Month 5 — Math, Statistics & Probability
- Month 6 — Data Visualization & Storytelling

Explorer → Foundation

Month 7-9

- Month 7 — pandas, Data Cleaning & Exploratory Data Analysis
- Month 8 — Databases, SQL & Data Collection
- Month 9 — Machine Learning Foundations & Regression

Foundation → Intermediate

Month 10-12

- Month 10 — Classification & Model Evaluation
- Month 11 — Clustering & Recommendations
- Month 12 — Computer Vision Images & Data

Intermediate → Advanced

Month 13-15

- Month 13 — Natural Language Processing & Generative AI Literacy
- Month 14 — Responsible AI, Model Lifecycle & Innovation Lab
- Month 15 — Capstone, Portfolio, Exhibition & Certification

Advanced → Young AI Data Scientist

Office +91 774 100 7941 | DM on WhatsApp book your Seat now! | Office +91 708 338 4100

स्किलऑनआयटी लर्निंग हब, श्री शांतुल बिझनेस हब, मराठा महिला अर्बनच्या वर, तिसरा मजला, चिखली रोड, बुलढाणा. पिन. ४४३००१

THE PROGRAMME AT A GLANCE

A complete learning journey

From computer foundations to a confident final project.

The same curriculum for Standards 2-10

Every student follows the same 15-month syllabus, covering the same subjects and monthly projects. The programme is not divided into grade-based tracks. Learning moves from foundational computer and programming skills through data analysis, machine learning and artificial intelligence to a final capstone and portfolio.

15 MONTHS

A structured progression from foundations to applied projects.

60 WEEKS

Four teaching weeks per month, with practice and review.

15 PROJECTS

A monthly build, including the final capstone and portfolio.

Learn, practise and build

Topics are introduced through explanation, demonstration and hands-on work. Daily assignments reinforce learning. Weekly revision and tests help students revisit concepts, while each month ends with a practical project and a chance to explain what they have built.

Progress that parents can see

Students collect programs, reports, dashboards, websites and AI demonstrations in a portfolio. Weekly tests carry 25 marks. Monthly tests and projects generally carry 50 marks each; the final capstone uses a 100-mark rubric. Level certificates are planned at Months 5 and 10, with final certification at Month 15.

Safe, responsible and practical

Projects use made-up, practice or properly licensed data. Students learn to protect personal information, check AI outputs and explain model limitations. Freelancing is taught through practice profiles, mock clients and supervised activities; adults handle accounts and payments for minors.

COURSE OUTLINE / MONTHS 1-2

Code. Explore. Create.

Weeks 1-8 | Shared syllabus for all students in Standards 2-10

01 Computer Basics + Python I

MONTH 1 / WEEKS 1-4

01 Computer foundations: understand hardware, software, storage, files and the input-process-output cycle. Practise documents, presentations, internet use and online safety.

02 First steps in Python: set up the coding environment and work with variables, data types, user input, formatted output and operators.

03 Strings and decisions: clean and format text, use indexing and slicing, and write conditions with if, elif and nested decisions.

04 Loops and logical thinking: repeat tasks, build number and string programs, plan a flowchart and create a scored data quiz.

PROJECT / Interactive Data Quiz

Students will create: A flowchart, question set, commented working quiz, scoring system and final demonstration.

02 Python II: Collections & Functions

MONTH 2 / WEEKS 5-8

05 Lists and tuples: store and organize related values, use collection methods, sort information and write comprehensions.

06 Sets and dictionaries: remove duplicates, compare groups and manage labelled records using keys and values.

07 Functions and problem solving: design reusable functions, work with arguments, scope and recursion, and explore lambda functions and generators.

08 Modules and libraries: organize helper code and use math, random, datetime and collections while completing the records-manager project.

PROJECT / Class Records Manager

Students will create: A working record manager with add, view, search, update and delete functions, statistics and test cases using sample records.

COURSE OUTLINE / MONTHS 3-4

Build a strong technical base.

Weeks 9-16 | Shared syllabus for all students in Standards 2-10

03 Python III: Data Analysis

MONTH 3 / WEEKS 9-12

09 Files and reliable code: read and write files, handle CSV and JSON, manage exceptions and introduce classes and objects.

10 Object-oriented thinking: explore methods, encapsulation, inheritance and polymorphism, with an introduction to advanced Python features.

11 NumPy and Pandas: create arrays, reshape data and perform calculations; build Series and DataFrames and select useful information.

12 Analysis and reporting: modify data, handle missing values and duplicates, group results, create charts and export a clear findings report.

PROJECT / Student Score Analyzer

Students will create: A clean sample dataset, analysis notebook, at least two charts and three written findings.

04 HTML & CSS

MONTH 4 / WEEKS 13-16

13 HTML foundations: understand how websites work and create structured pages using headings, text, links, lists, images, media and tables.

14 Forms and page structure: build inputs and validation, use semantic HTML, consider accessibility and search visibility, and introduce CSS.

15 Visual design with CSS: apply selectors, typography, colours, backgrounds, the box model, positioning, Flexbox and Grid.

16 Responsive websites: adapt layouts for different screens, add simple effects, explore teacher-led JavaScript and publish a tested portfolio website.

PROJECT / My Data Scientist Portfolio Website

Students will create: A responsive, published website with project screenshots, navigation, skills sections and a short test report.

COURSE OUTLINE / MONTHS 5-6

Make data meaningful.

Weeks 17-24 | Shared syllabus for all students in Standards 2-10

05 C Programming

MONTH 5 / WEEKS 17-20

17 C foundations: set up a compiler and write programs with variables, types, constants, input/output, operators and decision statements.

18 Loops and arrays: practise repetition, nested patterns and number programs; store values in arrays and explore searching and sorting.

19 Strings and functions: manipulate text, write reusable functions, explore recursion and understand pointers and passing values by reference.

20 Structured programs: introduce dynamic memory, structures, unions and files, then build and test a menu-driven marks-management application.

PROJECT / Student Marks Manager in C

Students will create: A working C program with sample records, sorting, search, input checks and file saving/loading, supported by test cases.

06 Excel

MONTH 6 / WEEKS 21-24

21 Spreadsheet confidence: enter and format data, manage worksheets and use references with basic formulas and summary functions.

22 Organizing information: sort and filter records, validate entries, apply conditional formatting and create readable charts and printable tables.

23 Smarter formulas: combine logical functions, conditional counts and totals, lookups and text functions to answer practical questions.

24 Dates and reporting: clean text, calculate with dates and use statistical functions, then prepare a survey workbook and visual summary.

PROJECT / School Habits Survey Report

Students will create: A survey sheet using made-up responses, validation and formulas, three charts and a summary of findings.

COURSE OUTLINE / MONTHS 7-8

Organize. Query. Discover.

Weeks 25-32 | Shared syllabus for all students in Standards 2-10

07 Advanced Excel

MONTH 7 / WEEKS 25-28

25 Clean, flexible data: use tables, named ranges, structured references and dynamic arrays; summarize information with pivot tables.

26 Interactive analysis: add slicers, timelines and pivot charts; introduce Power Query, forecasting and what-if analysis.

27 Dashboard craft: choose useful charts, organize key indicators, explore macros, protect workbooks and practise formula auditing.

28 From case study to dashboard: clean a dataset, build calculations and pivots, connect course tools and present a finished interactive workbook.

PROJECT / Interactive Excel Dashboard

Students will create: A clean dataset, pivot tables, KPI cards, four charts, slicers, a timeline and three written insights.

08 SQL & Databases

MONTH 8 / WEEKS 29-32

29 Database foundations: create tables, choose data types, define keys and constraints, update records and write SELECT queries with filters.

30 Analytical queries: use aggregates, GROUP BY, functions, joins, set operations, subqueries and common table expressions.

31 Advanced SQL: explore window functions, views, indexes, procedures, triggers and transactions, alongside permissions and database normalization.

32 SQL with Python: connect to a database, import and export data, apply analytical query patterns and report findings from the school-club project.

PROJECT / School Club Data Manager

Students will create: A database with related tables, an analytical query file, Python connection, chart and findings note.

COURSE OUTLINE / MONTHS 9-10

Visualize and predict.

Weeks 33-40 | Shared syllabus for all students in Standards 2-10

09 Power BI

MONTH 9 / WEEKS 33-36

33 Prepare information: explore the Power BI interface, connect data sources, profile data and transform or combine tables in Power Query.

34 Model and calculate: build relationships and date tables, introduce DAX and write measures using filter context and time intelligence.

35 Design for exploration: create visuals, slicers, drill-through, bookmarks and navigation, with accessible themes and mobile-friendly layouts.

36 Share the story: consider refresh, security and performance, review a practical case study and publish or export an interactive dashboard.

PROJECT / Interactive Power BI Dashboard

Students will create: A clean model, DAX measures and a two- or three-page report with interactive controls and a PDF export.

10 Machine Learning I: Regression

MONTH 10 / WEEKS 37-40

37 Machine-learning foundations: understand the ML workflow, descriptive statistics, probability, correlation and the mathematical ideas behind prediction.

38 Explore and prepare data: inspect datasets, treat missing values and outliers, remove inconsistencies and encode categories.

39 Features and fair testing: scale values, engineer features, avoid data leakage and use train/test splits, baselines and scikit-learn pipelines.

40 Regression and evaluation: compare simple, multiple and polynomial regression; measure prediction errors and recognize overfitting and underfitting.

PROJECT / Study-Time or House-Feature Predictor

Students will create: A prepared dataset, exploratory charts, preprocessing pipeline, baseline and regression comparisons, plus a model card.

COURSE OUTLINE / MONTHS 11-12

Learn patterns. Explain choices.

Weeks 41-48 | Shared syllabus for all students in Standards 2-10

11 Machine Learning II: Classification

MONTH 11 / WEEKS 41-44

41 Stronger models: explore regularization, cross-validation, hyperparameter tuning and alternative regressors before introducing classification.

42 Classification methods: study logistic regression, K-nearest neighbours and decision trees; interpret precision, recall and other evaluation measures.

43 Broader model choices: explore Naive Bayes, support vector machines, random forests and boosting, and address imbalanced datasets.

44 Compare and explain: select metrics and thresholds, review errors and feature importance, save a model and document its limits and risks.

PROJECT / Smart Category Classifier

Students will create: A pipeline comparing a baseline and classifiers, evaluation charts, a tuned saved model and a model card.

12 Machine Learning III: Recommendations

MONTH 12 / WEEKS 45-48

45 Discover hidden groups: explore K-Means, hierarchical clustering, DBSCAN, choosing cluster counts and dimensionality reduction.

46 Patterns and recommendations: introduce anomaly detection, association rules, content-based and collaborative recommenders, and time-series basics.

47 Reliable ML practice: preview neural networks, organize pipelines, tune models, consider responsible use and build simple deployed demonstrations.

48 Portfolio-ready recommendations: review the ML workflow, build a similarity-based recommender, explain item groups and evaluate fairness and filter-bubble risks.

PROJECT / Book or Activity Recommender

Students will create: A working recommender with item clusters, a small demonstration, baseline comparison, README and model card.

COURSE OUTLINE / MONTHS 13-14

Create with responsible AI.

Weeks 49-56 | Shared syllabus for all students in Standards 2-10

13 Artificial Intelligence I: Vision

MONTH 13 / WEEKS 49-52

49 Understanding AI: explore the history, types and everyday applications of AI, and see why the quality and variety of data matter.

50 How learning works: compare rules with learning, examine features and predictions, and distinguish memorization from useful generalization.

51 Neural networks: introduce artificial neurons, layers, activation and training, then explore a first network and the strengths and limits of deep learning.

52 Computer vision: examine images as data, introduce OpenCV, classification, detection, segmentation and transfer learning, then train and test a waste sorter.

PROJECT / Smart Waste Sorter

Students will create: An image dataset of clean waste items, a trained model, test results, improvement comparison and an explanatory poster.

14 Artificial Intelligence II: Language & Responsible AI

MONTH 14 / WEEKS 53-56

53 Language and chatbots: clean and represent text, explore word counts and TF-IDF, sentiment, similarity matching, speech and translation.

54 Generative AI literacy: understand language models and tokens, practise clear prompts, check AI claims and discuss copyright and deepfake awareness.

55 Responsible intelligence: explore agents and reinforcement learning, then examine bias, privacy, safety, human responsibility and the wider impact of AI.

56 Build and communicate: explore AI careers and model cards, plan a subject FAQ bot, test unfamiliar questions and create a responsible-use poster.

PROJECT / Safe Study FAQ Bot and AI Ethics Poster

Students will create: A bot with at least 15 FAQs, a test table using new questions, safe fallback replies, a model card and an AI Ethics Poster.

COURSE OUTLINE / MONTHS 15

Bring it all together.

Weeks 57-60 | Shared syllabus for all students in Standards 2-10

15 Freelancing + Capstone

MONTH 15 / WEEKS 57-60

57 Freelancing foundations: map skills to services, compare platforms and safety concerns, and prepare a profile and project case studies.

58 Working with a client brief: practise proposals, communication, estimates, pricing packages, scope, milestones, agreements and payment-safety concepts.

59 Professional delivery: plan tasks, check quality, document handovers, manage feedback and revisions, and complete a mock freelance sprint.

60 Capstone and exhibition: define a problem, prepare data, build and refine a solution, update the portfolio and deliver a five-minute final presentation.

PROJECT / Final Capstone and Freelance Portfolio

Students will create: An end-to-end capstone, README, updated portfolio and practice freelance profile, final pitch and exhibition demonstration.

The capstone: from an idea to a complete solution

1 / Define the problem

Choose a useful question and identify the intended user, suitable data, tools and success measures. Record privacy and ethical considerations before building.

2 / Build and improve

Prepare the dataset, complete the analysis or model, and create a dashboard, website or AI feature where appropriate. Keep a record of choices, testing and improvements.

3 / Present the work

Explain the problem, solution, results and lessons in a five-minute pitch. Share a working demonstration, clear documentation and a portfolio page during the final exhibition.

A portfolio that tells the learning story

The final portfolio brings together selected course projects, screenshots, short case studies and the capstone. It helps students explain what they built, how they solved problems and what they learned across the full programme.

PROGRAMME OUTCOMES / YOUR CHILD'S NEXT CHAPTER

Knowledge today. Direction for tomorrow.

Skills, confidence and continued guidance beyond the classroom.

A foundation for meaningful next steps

By completing the learning activities and projects, students build practical experience across coding, data and AI. This foundation helps them explore their interests, demonstrate their work and take informed steps towards future opportunities.

01 Choose a clearer future direction

Experience across Python, websites, databases, dashboards, machine learning and AI helps students discover what they enjoy and where their strengths lie. They can make more informed choices about future subjects, further study and the skills they want to develop.

02 Take supported first steps into freelancing

Students practise turning skills into services such as reports, dashboards, websites, data cleaning and simple automation. We help them prepare portfolios, profiles and proposals, understand client needs and plan delivery. Younger students begin with supervised practice; paid work and accounts must follow applicable age rules, with guardian involvement.

03 Turn a startup idea into a practical plan

Students can explore a real problem, identify potential users and shape a useful business idea. With our guidance, they can outline a simple business plan, build an initial prototype using course skills, explain its value and improve the idea through feedback.

04 Prepare for further study and future jobs

The programme provides a starting foundation for further learning, internships and job preparation after age 18. A portfolio of completed projects helps students demonstrate their skills, communicate their approach and identify the additional qualifications or experience needed for their chosen roles.

05 Continue growing with our support

Our support continues beyond the course through guidance on next learning steps, portfolio improvement, freelancing preparation and developing project or startup ideas. Students and parents can seek direction as interests develop and new opportunities arise.

THE OUTCOME: A PORTFOLIO, A PLAN AND CONFIDENCE TO BEGIN.

Freelance income, business success and employment depend on continued practice, eligibility and opportunities.