



KIDS & TEENS FREELANCING TRAINING

Data Science and AI Course Outline

MODULE 1: What is Data Science & AI?

- What is data? What is intelligence in machines?
 - Real-world AI: voice assistants, chatbots, game bots
 - How data helps AI learn
 - Fun activity: AI vs human guessing game
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MODULE 2: Data Collection & Organization

- Create tables of favorite games, foods, or animals
 - Organize data into rows and columns
 - Use spreadsheets or Google Sheets
 - Activity: Conduct a class/family survey
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MODULE 3: Exploring Data – Patterns & Predictions

- What is a pattern?
 - Sort and filter data to find trends
 - Use pie charts, bar graphs
 - Activity: Make predictions based on simple data (e.g., Which fruit is most loved?)
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MODULE 4: Visualizing Data Like a Pro

- Graphs, infographics, dashboards
 - Tools: Canva, Google Sheets, or Scratch extensions
 - Project: Visualize your own survey results
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MODULE 5: How Machines Learn – Intro to Machine Learning

- Supervised vs unsupervised learning
- Learn with images, numbers, or words
- Train a model to sort cats vs dogs using online tools like Teachable Machine
- Analogy: AI learns like we do — with examples!

MODULE 6: Talking AI – Voice, Text & Chatbots

- What is a chatbot?
 - Examples: Siri, Alexa, ChatGPT
 - Create a simple chatbot using block coding or Google Dialogflow
 - Roleplay game: Be the bot and guess human questions
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MODULE 7: Ethics in AI & Smart Decisions

- Can AI be unfair?
- Real-life examples of biased machines
- Activity: Fair AI judge – decide what’s fair vs unfair in data decisions
- Discuss why diverse data matters

MODULE 8: Final Project – Build a Smart AI Idea

- Choose a problem to solve (e.g., smart pet, learning app, traffic helper)
- Collect data → Organize → Visualize → Build idea
- Present it as a poster, video, or prototype
- Earn your “**Young AI Explorer**” title