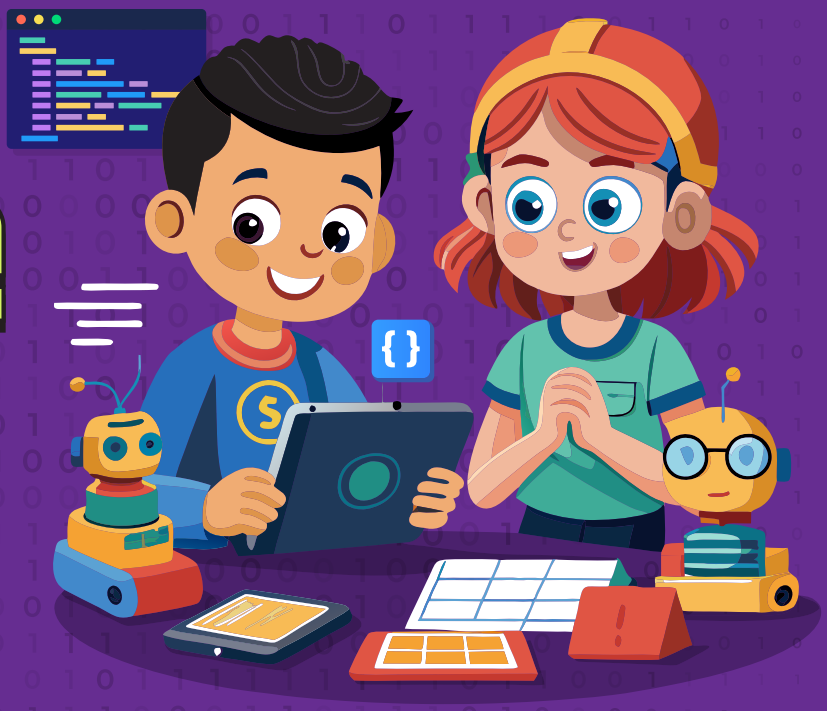
YABOT

Code Innovator

LEVEL 4



Objective

Level up your coding journey!

Build advanced web applications, explore Artificial Intelligence and Machine Learning, and bring innovative ideas to life through exciting, real-world projects.

Group Size
Typically 6 Students

Course duration
8-10 Months

T&C* The course timeline depends on each child's learning phase, with the same curriculum for all.

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Curriculum

Discover AI Concepts & Thinking

1. **Introduction to AI:** Understand what AI is, its types (weak vs strong), and its role in daily life.
2. **How AI Learns:** Explore how machines learn from data vs how humans learn.
3. **AI Tools & Teachable Machine:** Experiment with visual ML tools and train your first model.
4. **Image Classification Projects:** Build and test custom image models like "toy or fruit classifier."
5. **Python Review for A:** Strengthen coding logic, loops, and conditionals for AI tasks.

Learn Data & Machine Learning

1. **Understanding Data:** Learn about datasets, collecting, cleaning, and organizing data.
2. **Data Visualization:** Turn data into charts and trends using Python.
3. **Intro to NumPy & Pandas:** Use libraries to manipulate and prepare data for AI.
4. **Machine Learning Basics:** Explore supervised vs unsupervised learning and ML categories.
5. **Train Your First Model (Scikit-learn):** Build, test, and evaluate simple ML models like decision trees or classifiers.

Build Real-World AI Applications

1. **Natural Language Processing (NLP):** Learn how AI reads and understands text, try sentiment analysis and chatbots.
2. **Computer Vision & OpenCV:** Explore how AI "sees" images; create filters, detect objects, and faces.
3. **Flask for AI Apps:** Build web apps that display AI results, collect user input, and show predictions.
4. **Integrating AI Models with Flask:** Connect ML models to real web pages and create apps like "What's in My Picture?"
5. **Final Project: AI Hackathon:** Design and deploy your own AI web app using Flask, ML, and APIs.