

Artificial Intelligence for Juniors

Suitable for: G4 - G7

Prerequisite: None

Duration: 20 Weeks

Classes per Week: 1 class (45 minutes each)

Course Overview:

This introductory course is designed to introduce young students to the world of Artificial Intelligence (AI) through fun, interactive activities. Using visual tools like Quick Draw, Auto Draw, and Scratch, students will explore how AI works, including concepts like recognition, detection, and basic machine learning. By the end of the course, students will have an understanding of how AI impacts everyday life and will have created simple AI-based projects.

Covered Topics

Unit 1: Introduction to AI Concepts

- Understanding AI and its role in technology
- Engaging in first AI activities using tools like Quick Draw and Auto Draw
- Introduction to AI and programming basics

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Unit 2: AI and Interactive Programming with Scratch

- Learning to interact with AI through Scratch activities
- Creating projects like Hit The Snowman and Smile & Frown Detection
- Exploring how AI can detect emotions and respond to user input

Unit 3: Fun AI-Based Activities

- Developing AI-based games like Eat The Jam and Don't Close Your Eyes
- Introducing movement and interactivity with Cassy Dance and Eat The Apples
- Applying AI for healthy choices in activities like Healthy Shopping

Unit 4: Hands-On with Machine Learning Tools

- Introduction to Google's Teachable Machine for training models
- Building interactive AI projects such as Pop The Ball and Someone Noone
- Exploring concepts of recognition and differentiation in AI

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Unit 5: Final Projects and Creative AI Applications

- Creating a unique AI-based project using learned concepts
- Applying AI in everyday scenarios with projects like Drinking and Thumbs Up & Down
- Final assessment and demonstration of AI understanding through a culminating project

Materials Needed:

- Access to a computer or tablet
- Internet connection
- Chrome browser

Assessment

At the end of each lesson, learners will be assessed on their ability to apply AI concepts in hands-on projects. Assessments will focus on creativity, understanding of AI interactions, and the ability to create functional and interactive AI-based activities.

Certification

A certificate of completion will be awarded to students who successfully complete the course, recognizing their foundational understanding of Artificial Intelligence.