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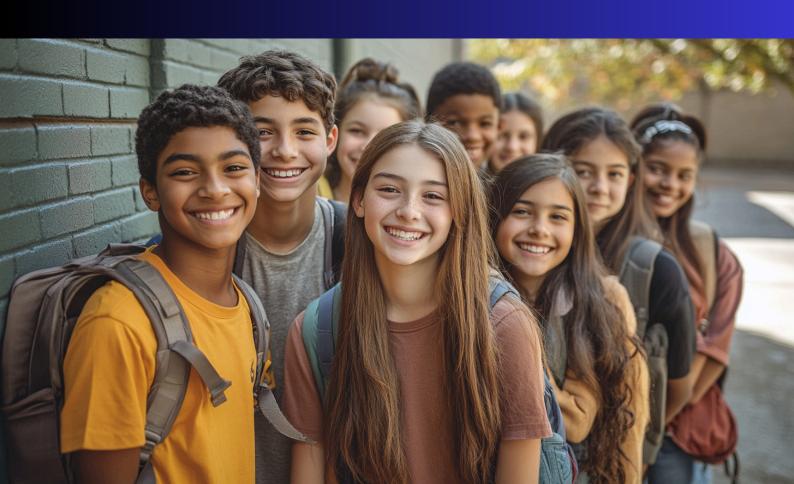
Math4AI, Coding4AI, Ai & STEM AI

For Grades 4 to 10



# Why Choose Our Summer Program?

- Future-Ready Curriculum Learn Al, Python, STEM & Math4Al with real-world applications
- Customized by Grade Level Tailored topics for Grades 4–10
- Strong Academic Alignment Aligned with AP Pre-Calc, Algebra, and US School District Math
- Live Online Classes + In-Person Meetups Flexible hybrid model
- Expert Mentors Sessions led by Math & STEM educators from top EdTech backgrounds
- Final Projects Every child builds their own AI app, visual dashboard, or a Python-based game!



### Group A - Grade 4,5,6

#### Coding4Al Topics

- Intro to Python & Turtle Graphics
- Loops for Patterns
- Functions & Reuse
- If-Else Logic + Interactive Decisions
- Games & Simulations with Randomness
- Data with Lists & Graphs
- Mean, Median, Mode + Geometry Drawing
- Final Project Build Day

#### Al & GenAl Topics

- What Is AI, Really?
- Al vs ML vs DL What's the Difference?
- Neural Networks How Al Builds a Brain
- Generative AI How Machines Create New Content
- ChatGPT & LLMs Talking to Machines
- NLP & Computer Vision Understanding the World
- When Al Plays Games Reinforcement Learning
- DNA & Traits: The Secret Code Inside Us
- Tiny Atoms, Big World
- Let's Explore the Periodic Table
- Meet the Senses of a Robot
- CAVs: Smart Cars That Think
- Final Project



## Group B - Grade 7,8,9

#### Math4Al Topics

- Sets, Logic & Al
- Coordinates & Relations
- Data Visualization
- Central Tendency
- Probability Basics
- Simulation & Experiments
- Functions & Graphs
- Final Project

#### Coding4Al Topics

- What is AI? Why Python?
- If-Else Logic + Decision Trees
- Loops + Simulations
- Lists, Dictionaries & Smart Data
- Functions + Modular Thinking in Al
- Build a Rule-Based Al Project
- Intro to ML & Data-Driven Thinking
- Final Al Project + Demo Day



# Group C - Grade 10

#### Math4Al Topics

- Functions, Relations, and Graphs
- Systems of Linear Equations and Matrices (basics)
- Quadratic Equations and their Applications
- Introduction to Sets, Relations, and Functions in Al Context
- Probability Distributions (Binomial, Normal Distribution basic level)
- Conditional Probability and Bayes' Theorem for Al
- Descriptive Statistics: Mean, Median, Mode, Standard Deviation
- Basic Inferential Statistics and Hypothesis Testing (intro level)
- Vectors and their Role in Machine Learning
- Real-life Applications: Predictive Analysis and Al Model Evaluation

#### Coding4Al Topics

- Python Recap: Functions, Lists, Dictionaries, File Handling
- Object-Oriented Programming Basics
- Introduction to Libraries: NumPy and Pandas
- Data Preprocessing for Machine Learning (basics)
- Building Simple ML Models using Scikit-learn
- Understanding Decision Trees and K-Nearest Neighbors Algorithms
- Introduction to APIs: Calling AI APIs (like OpenAI) from Python
- Creating Simple Chatbots & Recommendation Systems (basic versions)
- Error Handling and Debugging Techniques
- Mini Project: Build a Simple Al-Powered App

