



YOUNG SCHOLAR'S CODING AND ARTIFICIAL INTELLIGENCE SUMMER PROGRAM

FOR STUDENTS IN GRADES 3 - 6

3rd - 4th GRADES

Periods 1 and 2: Introduction to Coding

Students explore coding through art, music, and sports. Children will create collages, memes, and stories through a digital art medium; in music, they will build songs with beats, notes, chords, and loops; in sports, they will design their own sports game with game events, sound effects, and event handlers. Students will complete exercises and produce and present projects to their classmates. No prior coding experience is needed; all students are welcome.

Periods 3 and 4: Introduction to Robotics and Artificial Intelligence

Students will be introduced to Physical Computing using microcontrollers and programmable circuit boards. Students will have the opportunity to apply the knowledge of their new coding skills to control their physical world. They will learn how to perform tasks using LEDs, buttons, and basic sensors. Students will also be introduced to Artificial Intelligence, with grade-appropriate lessons, activities, and projects.

5th - 6th GRADES

Periods 1 and 2: Coding Explorations

Computer coding is everywhere in today's world. Students of any experience level will be challenged to improve their skill set. We will be exploring several different popular programming languages (including Scratch, JavaScript, and Python) using block and text-based coding. Students will complete exercises and produce and present projects to their classmates. No prior coding experience is needed; all students are welcome.

Periods 3 and 4: STEM and Artificial Intelligence Projects

Students will explore Science, Technology, Engineering, and Math through hands-on activities. Students will build projects featuring different microcontrollers (including micro:bit, circuit playground express, and retro arcade). Students will then turn their focus to how Artificial Intelligence can be useful and relevant through fun and interactive projects.

APPROVED FOR DISTRIBUTION

MAY 17 2024

**DR. PATRICK HARRIGAN
SUPERINTENDENT OF SCHOOLS**

August 5 to August 16 | 9:00 a.m. - 2:30 p.m.

Early registration by June 30: \$2900 | Regular registration after June 30: \$3150

LONG ISLAND UNIVERSITY

Dr. Lynne Manouvrier | lynne.manouvrier@liu.edu
Office: (516) 259-2580