Programming through Python: Machine Learning

Presented by AcademiaEdge

Lead Teacher: Raghav Sriram (11th)
Assistant Teacher: Eamon Mukhopadhyay (11th)

Date and Timings: 6/12-9/18 Sunday from 6-7 PM EST
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Requirements: Any student ages 11 or above may join if interested. This class is highly recommended for students with a decent math background, preferably knowing up to Precalculus but highly-advanced mathematics are not required for this course. Students should have a strong background in python and preferably know basic data processing and computation libraries such as numpy and pandas (though very basic versions will be taught in class).

About Us:

      We are a group of juniors from Carmel High School who want to help people begin their journey into programming by introducing and teaching students Machine Learning, one of the most in-demand fields globally. Raghav, the teacher of this course, is an experienced programmer in python and machine learning and has built and developed projects of his own. He is excited to help people begin their journey into machine learning and deep learning and can't wait to spread his knowledge.

Class Description:

      Introduction to Machine Learning with Python is a course offered by AcademiaEdge, a nonprofit organization created by high school programmers. There are 15 classes in total, each class is an hour long. A detailed description of the class syllabus can be found below. All classes are virtual and will be held through Zoom. In addition to hosting our classes through Zoom we will be using google classroom to submit assignments and google calendar for parents and students to keep track of classes and assignments. Each class lecture will be recorded and put in a google drive along with the class slides for all students to reference too when doing their assignments.

      Students can ask questions at any time during the class and the assistant or teacher will answer them. Additionally, students may message teachers via google classroom or by email and our teachers will respond as soon as possible. In order to give this individualized experience filled with fun projects and assignments guided towards young children, classes will be limited

to 10-15 students so that teachers can give high-quality attention to each student. Sign up is first come first serve and a waitlist may be created if there is excessive student participation. This course will be guided towards students of ages 11 and up, but any student may join if interested. We are excited to introduce the world of Machine Learning to your child!

Syllabus and Course Content:

AcademiaEdge is working hard to provide the syllabus and course content for Programming Through Python: Machine Learning. We strongly encourage students to check back in the upcoming days.

Rules and Expectations

Classroom Procedures:
Students are to stay muted at all times except if they have a question or when asked to be unmuted. The student may temporarily unmute himself to ask his/her question. Alternatively, if the student would not like to speak in front of the class, then the student may ask his/her question in the Zoom chat. We encourage students to ask questions and regularly participate in class. Also, we would like students to be respectful to their classmates and teachers.

Students, please do not:
- Eat or drink with your microphone turned on
- Be disrespectful to teachers or other students
- Put inappropriate pictures on your webcam
- Send inappropriate messages in the class chat

Please do:
- Ask questions
- Be attentive
- Be engaged and active throughout the class
- Make sure to have your camera on throughout the class
- Do assignments thoroughly
- Submit assignments before deadline
- Have Fun!

Google Classroom Layout:

Each lesson's recording will be found on google classroom along with the class's slides and notes. Homework assignments will be assigned and submitted via google classroom as well. Students can ask questions through the messaging system in google classroom or via email.

Homework procedures:

Students will be given homework in google classroom via google docs, which will consist of inserting screenshots or short-answer/multiple-choice questions, or google forms. The google forms will mainly be used for knowledge checks, while the google docs will be used for general homework assignments. Each assignment is due 24 hours before the next class to give ample time for teachers to grade students' assignments. Students should send a message or an email if they are unable to turn in their homework by then with a valid explanation of why they will not be able to turn in their homework by the deadline, and the teachers will come up with a possible solution. This also applies to missing a class. Course projects will also be assigned and submitted through Google Classroom. If a student misses an assignment deadline repeatedly an email will be sent to his/her parents.