Python Programming

Instructor:
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    Department of Electrical and Computer Engineering
    North Carolina State University
    Research Area: Computer Architecture and Compiler

Class time: 11:10am-12pm

Prerequisites and restrictions: Grade 3 math (fractions, geometry, etc.)

Course summary:
    This course introduces computer programming using the Python programming language and offers hands-on experience in coding and debugging. The focus is on fundamental programming concepts, which are universal for most, if not all, programming languages.

Topics:
    Introduction to computers; introduction to programming
    Variables
    Basic data structures
    Input & output
    Control flow: if and else
    Control flow: looping
    Functions and modules
    Programming exercises
    Classes and objects (optional for advanced students)
    Programming projects using Pygame (optional for advanced students)

Textbooks:
    Recommended: Python for Kids: A Playful Introduction to Programming by Jason R. Briggs. 2013.
    Optional: Python Crash Course: A Hands-on Project-based Introduction to Programming by Eric Matthes. 2016

Requirements:
    Students need to bring a laptop for in-class programming exercises.