worked with no one; advised by no one

Algorithm

A set of well-defined and logical instructions to be followed to solve a specific problem, complete a certain task, or preform a computation. It can be purely mathematical and does not need to run on a computer. It must have a finite number of steps and have a solution. An algorithm will only work for problems of their class. Examples include search algorithms or sorting algorithms.

Program

A set of well-defined and logical instructions for a computer to follow to solve a specific problem, complete a certain task, or preform a computation. A program can only work on a computer and does not work outside of a computer as there is nothing to run the program.

Application Program

A program which is designed to complete a specific task separate and unique from the operation of the computer system. It is separate from programs used to control or communicate with the computer's physical hardware.

Operating System (OS)

A program/programs which manage basic services for programs and computer hardware such as input/output, resource allocation, communication, and file system manipulation. It is the basic software on a computer system which is used to control computer components and to communicate with them.

Every operating system runs on a computer and controls the basic functionality of a computer such as inputs (keyboard, mouse, webcam, etc) and outputs (video, audio). An operating system is a computer program as it is still a set of logical instructions for a computer to follow to run programs and other basic functionality like sending data to your screen to display info or access your hard drive to load in all your information. An operating system also can only run on a computer as it would not be applicable outside of one.