

BENCHMARKER

The bench marking keylogging program “Benchmark” is designed as a scalable tool aimed at measuring and evaluating user performance in typing and mousing interaction speeds. Developed in Python, it will integrate and utilize libraries such as “pynput” for capturing real-time input events and “python-can” for logging messages. These functionalities enable the program to record every keystroke and mouse click, ensuring timestamping and data collection to an external file which the user will be able to access. The program will initiate with an interface which the user will use to navigate and determine the input they wish to test, data organizing set preferences, and review their performance on. Upon execution, Benchmark will calculate and display metrics such as the keystrokes per minute (KPM), as well as clicks per minute (CPM). The program will also allow users to store session data locally where they will be able to compare their performance with past performances of theirs and determine if they are improving their abilities. Much of the program’s functionality will come from the Listener API which will enable us to capture and analyze the events the user is inputting, as well as put the user up against themselves or averages from the developer. Looking ahead, the intention of the program will be to have a framework for scalability to go into areas of gamification through high scores, cloud integration for web pages, or further enabling the user to test the differences between several hardware inputs to determine efficiency. For now, the functionality of the program will be limited to a certain number of options consisting of capturing keyboard/mouse events, input set customization, logging the data, and exiting the program, while further modifications can be made to extend the logger’s purpose beyond its limited scope.