

## Summary of the code and what I tried

### Decompiling

Used this link [here](#) to expand the grossness of the code from zlib to standard python

### What I did then

I hooked the python3 debugger from Visual Studio Code to the nasty program. Found out that the debugger does not enter the mainloop of tkinter because tkinter runs on a separate process and therefore immutable. That is just a guess I do not know

### The error

There was a line on error 90, so I went there and saw this

```
sample_KHTs = (array(release_times) - array(press_times)).tolist()
```

After adding a try except statement, we deduced that it was the release\_times not being filled with values.

### The “bang head against wall error”

Where the release\_times were being populated was a weird edge case with this line

```
if (key.char in VALID_KEYS):  
    release_times.append(time())
```

was not working while

```
if (key.char in "".join(VALID_KEYS)):  
    release_times.append(time())
```

Allows for release\_times to be filled with actual values But then the program stopped executing, never reaching the return or debug statement :(