Combinational Logic Locking Conquest --- Instructions/Tips

You have been provided with two sets of circuits, each containing:

- Small benchmark locked with 40 bits of SFLL-fault key plus 40 bits of Random Logic Locking key (total 80 key bits)
- Medium benchmark locked with 60 bits of SFLL-fault key plus 60 bits of Random Logic Locking key (total 120 key bits)
- Large benchmark locked with 80 bits of SFLL-fault key plus 80 bits of Random Logic Locking key (total 160 key bits)

You also have access to a *bonus* combinational benchmark: locked with 128 bits of SFLL-fault key plus 128 bits of Random Logic Locking key (total 256 key bits)

Your challenge is to recover as much of the key as possible.

Oracles carry the same name as their corresponding netlist. They can run from the command line:

```
$ ./c432_v1 <input bits separated with spaces>

e.g. ./c432_v1 1 1 1 1 1 0 0 0 0 1 0 0 0 1 1 1 1 1 0 0 0 1 0 1 1 1 1
0 0 1 0 0 1 0 0 1
```

Note: The oracle has been tested using 64-bit Linux (Xubuntu 18.04, Ubuntu 16.04 in WSL)

After registering you will be invited to join the participants' Google Group, which you can use as a Q&A forum.

An invite will be sent to the team leader after registration (within 24 hours or so), and you can request more email addresses to be added by emailing benjamin.tan@nyu.edu