Tested on: Ubuntu 16.04

Bugs found:

1. Neither the job number nor the stats information is output to the terminal with a newline character.
2. The job number is not returned immediately, only after the 5 second wait.
3. Upon attempted shutdown a Malformed Input error message will be displayed; the program does not shut down.
4. The SHA512 algorithm is not used
5. Sending multiple hash requests at once results in extraneous html returned for requests after the first.

Test case coverage:

I think that the test included provide fairly good coverage. I tried to cover every requirement. I felt that some requirements did not merit their own test case. For instance, the fact that the application is accepting html connections is proven by tests that send POST or GET messages to it. But whether in its own individual test case or along with other requirements, each requirement gets tested.

There is a little negative testing, but it could stand to use more, depending upon the other applications it is used with. In fact, it could use quite a bit more integration testing with other applications, once it is known with which applications it will be interfacing.

It would also be good to repeat these tests on each supported platform.