

Daniel Frias

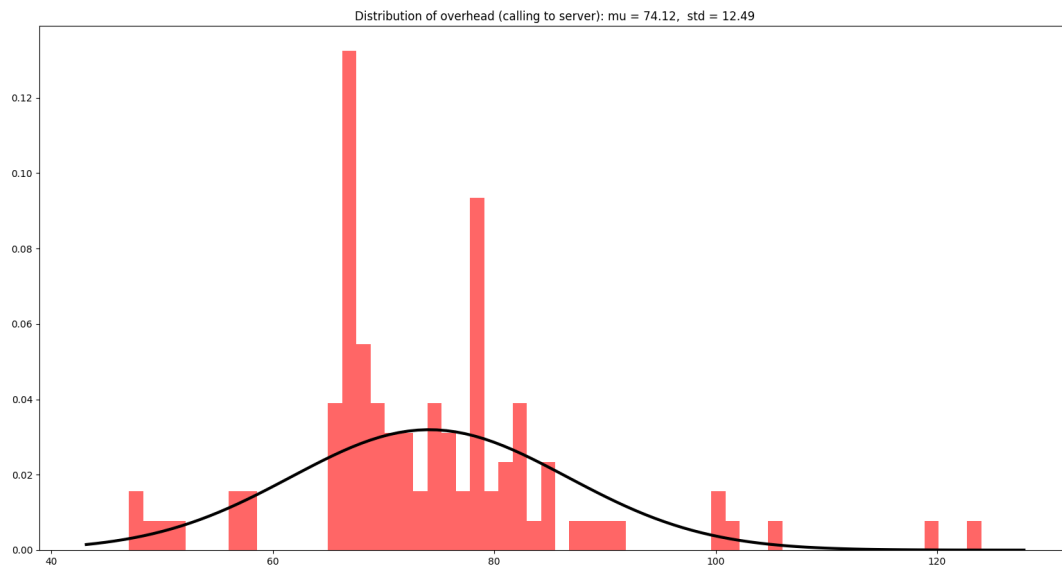
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CSCE 313

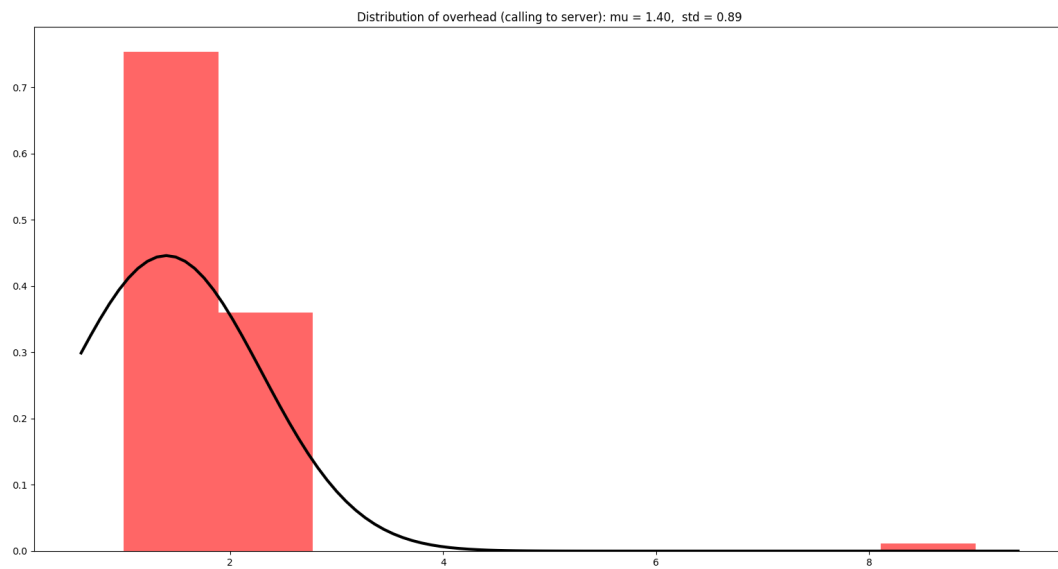
Section 516

## Machine Problem 2 Report

In the client/server program, the client sends requests and the server generates data for those requests. In this report, we measure the overhead of generating the data from the server compared to generating it locally. When calling `generate_data()` from the server, the mean overhead was  $74.12 \pm 2.45$  microseconds, with a CI of 95%. This histogram shows the distribution of overhead across one-hundred calls to the function:



Now, when calling `generate_data()` locally, the mean overhead was  $1.4 \pm 0.17$  microseconds, with a CI of 95%. This second histogram shows the distribution of local overhead over one-hundred calls to the function:



From these tests, we can conclude that there is much more overhead when generating the data over a server than when generating it locally. Since there are more methods to go through when requesting data between processes, it makes sense why the overhead would be higher compared to the next to no overhead generating the data locally.