

CS5473 - Project 5

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1 Problem 1

1.1 Runtimes

Table 1: Problem 1 Runtime

Integers	1M	2M	4M	8M
Same RT	0.0002394965	0.0004862981	0.0012506239	0.0032828204
Diff RT	0.0004300362	0.0008670914	0.0017082404	0.0039351337

1.2 Same Node

- Latency $\approx -3.488867e - 04s$
- Bandwidth $\approx 9016.07MB/s$

1.3 Diff Node

- Latency $\approx -1.498357e - 04s$
- Bandwidth $\approx 7957.72MB/s$

1.4 Linear Regression

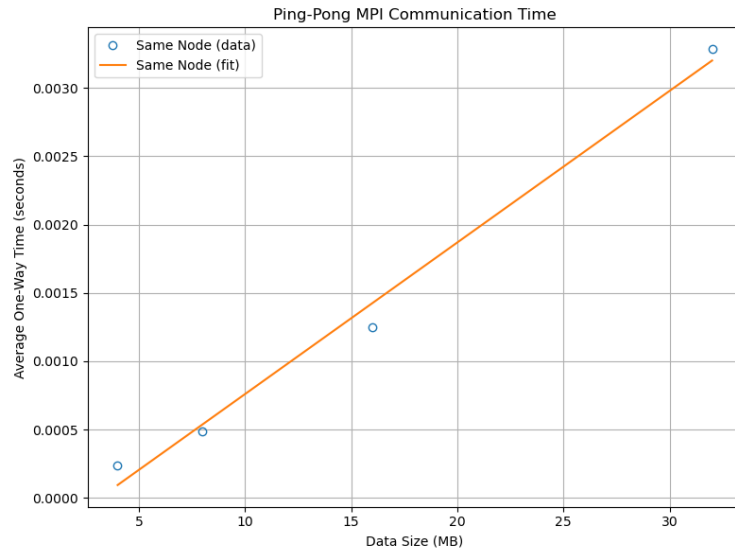


Fig. 1: Linear Regression for same

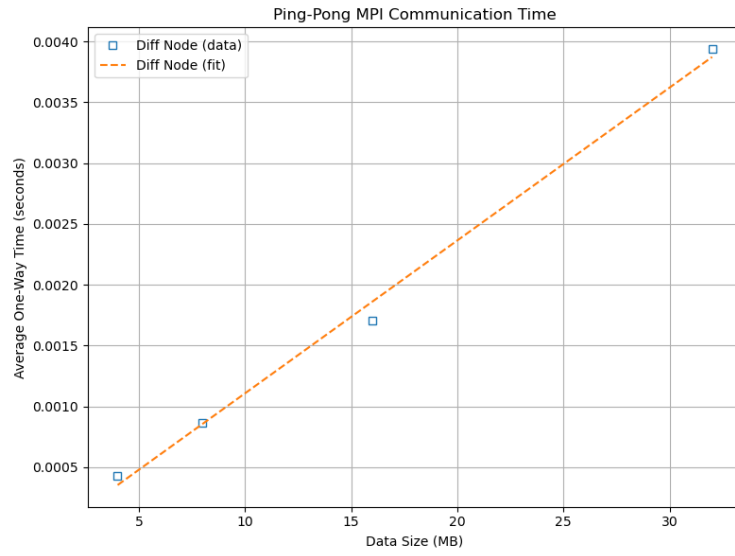


Fig. 2: Linear Regression for diff

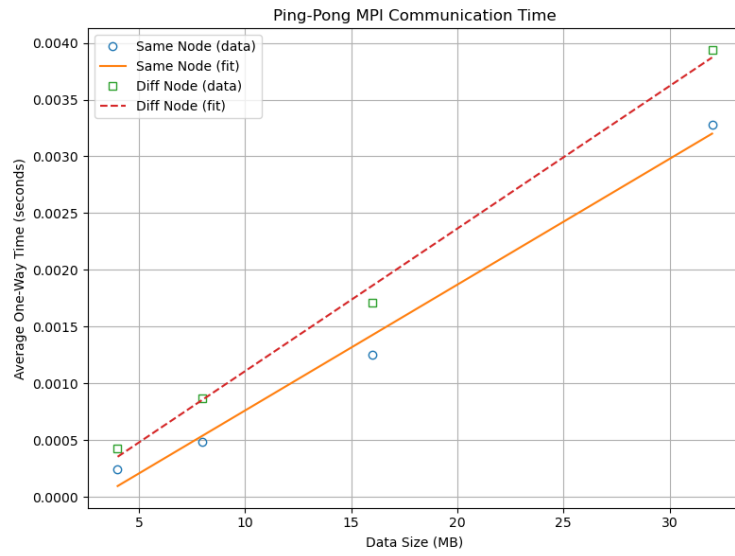


Fig. 3: Linear Regression for both methods