Forschungsprojekt

Simon König (3344789)   Leon Matzner (3315161)   Felix Rollbühler (3310069)   Jakob Schmid (??????)

Abstract—In this paper we will analyze and compare the graph frameworks Galois, Ligra and Polymer in their parformance. We will also set up and compare these frameworks in a distributed scenario.

Index Terms—Galois, Ligra, Polymer, distributed computing, Gluon

I. INTRODUCTION

My intro... blah blah [1].

II. THINGS

test

A. Polymer

Installing Polymer is straight forward.

III. CONCLUSION

The conclusion goes here.

ACKNOWLEDGMENT

We are using the graph frameworks Galois [2], Ligra [3] and Polymer [1].

Also we use Gluon [4] for the distributed setups.

REFERENCES

[1] K. Zhang, R. Chen, and H. Chen, "Numa-aware graph-structured analytics," in *Proceedings of the 20th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming*, ser. PPoPP 2015. New York, NY, USA: Association for Computing Machinery, 2015, p. 183–193. [Online]. Available: https://doi.org/10.1145/2688500.2688507

[2] D. Nguyen, A. Lenharth, and K. Pingali, "A lightweight infrastructure for graph analytics," in *Proceedings of the Twenty-Fourth ACM Symposium on Operating Systems Principles*, ser. SOSP '13. New York, NY, USA: Association for Computing Machinery, 2013, p. 456–471. [Online]. Available: https://doi.org/10.1145/2517349.2522739

[3] J. Shun and G. E. Blelloch, "Ligra: A lightweight graph processing framework for shared memory," in *Proceedings of the 18th ACM SIGPLAN Symposium on Principles and Practice of Parallel Programming*, ser. PPoPP '13. New York, NY, USA: Association for Computing Machinery, 2013, p. 135–146. [Online]. Available: https://doi.org/10.1145/2442516.2442530

[4] R. Dathathri, G. Gill, L. Hoang, H.-V. Dang, A. Brooks, N. Dryden, M. Snir, and K. Pingali, "Gluon: A communication-optimizing substrate for distributed heterogeneous graph analytics," in *Proceedings of the 39th ACM SIGPLAN Conference on Programming Language Design and Implementation*, ser. PLDI 2018. New York, NY, USA: Association for Computing Machinery, 2018, p. 752–768. [Online]. Available: https://doi.org/10.1145/3192366.3192404