Efficient Graph Kernels for RDF data using Spark

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Abstract

In this paper we study the application of graph kernels for RDF data using the popular Apache Spark¹ engine in combination with the SANSA-Stack² data flow utilities. We focus on an implementation of the Intersection Tree Path (ITP) Kernel, published by Gerben Klaas Dirk de Vries and Steven de Rooij in [1], that is based on the concept of constructing a tree for each instance and counting the number of paths in that tree.

TODO: Add further information about implementation and/or results

- 1 Introduction
- 2 Approach
- 3 Implementation
- 4 Evaluation
- 5 Conclusion
- 5.1 Project timeline
- 5.2 Further ideas

References

[1] Gerben Klaas Dirk De Vries and Steven De Rooij. A fast and simple graph kernel for rdf. In *Proceedings of the 2013 International Conference on Data Mining on Linked Data - Volume 1082*, DMoLD'13, pages 23–34, Aachen, Germany, Germany, 2013. CEUR-WS.org.

¹http://spark.apache.org

 $^{^2 \}mathrm{http://www.sansa-stack.net}$