Context-Free Path Querying by Using Kronecker Product*

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Abstract. Abstact is very abstract.

Keywords: Path querying · Graph database · Context-free grammars · CFPQ · Kronecker product · !!! .

1 Introduction

CFPQ is popular.

Matrices [1] — algorithm is fast, but grammar size is problem. Moreover, bad for regualr queryes.

* Supported by organization x.

Following contribution.

1. !!!
2. !!!
3. !!!

2 Recursive State Machines

Or recursive networks [**?**] or resursive finite automata [**?**] or ...

3 Kronecker Product

For graphs, for matrices, for FA intersection.

4 Kronecker Product Based CFPQ Algorithm

Algorithm description

4.1 Example

Worst case from lecture notes.
Smthg else?

5 Evaluation

RedisGraph + CFPQ_Data
Cases, when kronecker should be significantly better that matrix. When grammar is big. When query is regular.

6 Conclusion

Future research. GraphBLAST. Paths, not just reachability.

References

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