

ContextFree Wars: The RedisGraph Strikes Back

Semyon Grigorev
s.v.grigoriev@spbu.ru
semyon.grigorev@jetbrains.com
Saint Petersburg State University
St. Petersburg, Russia
JetBrains Research
St. Petersburg, Russia

Arseniy Terekhov
simpletondl@yandex.ru
Saint Petersburg State University
St. Petersburg, Russia



Figure 1: Episode IV: A New Hope

ABSTRACT

A long time ago in a galaxy far far away...

1 INTRODUCTION

All-pairs is a classical problem/ What about single-source?

2 PRELIMINARIES

2.1 Graphs

labelled digraph, matrices, ...

2.2 Languages

Grammars, normal form, ...

2.3 Matrix-Based Algorithm

Description

3 MATRIX-BASED SINGLE-SOURCE CFPQ ALGORITHM

New algo description.

3.1 Implementation Details

Algo implementation details: python, graphBLAS, smthng else?
Two version.

3.2 Algorithm Evaluation

And comparison. With combinators, GLL (.NET version).

Tables.

Results.

4 REDISGRAPH EXTENDING

4.1 Cypher

parser extending, proposal,

4.2 RedisGraph

CFPQ to matrix expressions, etc.
Limits, restrictions, etc.

5 CONCLUSION

Conclusion

Future research