

Visualization of the OPTICS Algorithm

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ABSTRACT

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Index Terms: Human-centered computing—Visualization—Visualization techniques—Treemaps; Human-centered computing—Visualization—Visualization design and evaluation methods

1 INTRODUCTION

The OPTICS algorithm is a density based clustering algorithm, that outputs a list of points, ordered according to the reachability of the points and the logic of the algorithm. This result is usually visualized by plotting this list as a bar chart with the output index as x-value and the computed reachability distance as y-value. This reachability plot then is used to make assumptions about the cluster-hierarchy in the data.

2 MOTIVATION

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2.1 Background information about the problem, tasks, users, and data

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3 RELATED WORK

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3.1 Other visualization solutions to this problem or similar problems

bla

3.2 Any previous visualization ideas that you incorporated into your solution

bla

3.3 References to both academic and commercial tools used

bla

4 APPROACH

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4.1 Description of your visualization design

bla

4.2 Reasons for your design choices

bla

5 IMPLEMENTATION

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5.1 Brief description of how the system was implemented (toolkits, languages, platforms)

bla

5.2 Any serious implementation challenges you encountered and how you handled them

bla

6 RESULTS

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6.1 Scenario(s) of use, including screen shots of the system being used

bla

6.2 Performance of the system

bla

6.3 Feedback from the evaluations about the design and functionality of your tool.

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7 DISCUSSION

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7.1 Strengths and weaknesses of your approach and implementation

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7.2 Lessons you learned

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8 SEPARATION OF TASKS

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9 CONCLUSION

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