

Algorithm and Data Structure Coursework: PCA Features for R-tree Based Similar Image Search

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Table 1: Frequency of Special Characters

Non-English or Math	Frequency	Comments
\O	1 in 1,000	For Swedish names
π	1 in 5	Common in math
$\text{\$}$	4 in 5	Used in business
Ψ_1^2	1 in 40,000	Unexplained usage

ABSTRACT

This paper provides a sample of a L^AT_EX document.

Keywords

R-Tree, Similar Image, PCA, K-Means

1. INTRODUCTION

Github address: <https://github.com/caiwaifung/lastcourse>.

1.1 Image Search

1.2 Data Structures

1.3 Low Level Features

1.4 PCA

1.5 K-Means

2. DATA

3. FEATURE FINDING

4. R-TREE

We use the “rtree alternative package” implementation of R-tree. The wrapper `src/a.cpp` calls methods of provided R-tree class. Run `python src/run.py` to compile and run the program.

5. EXPERIMENTS

6. CONCLUSION

7. REFERENCES

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Table 2: Some Typical Commands

Command	A Number	Comments
<code>\alignauthor</code>	100	Author alignment
<code>\numberofauthors</code>	200	Author enumeration
<code>\table</code>	300	For tables
<code>\table*</code>	400	For wider tables