

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

Qiwei Feng
2011011250, IIS-10
Tsinghua University
gdfqw93@163.com

Pufan He
2011011307, IIS-10
Tsinghua University
hpfdf@126.com

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

- [4] M. Herlihy. A methodology for implementing highly concurrent data objects. *ACM Trans. Program. Lang. Syst.*, 15(5):745–770, November 1993.
- [5] L. Lamport. *LaTeX User's Guide and Document Reference Manual*. Addison-Wesley Publishing Company, Reading, Massachusetts, 1986.
- [6] S. Salas and E. Hille. *Calculus: One and Several Variable*. John Wiley and Sons, New York, 1978.

ABSTRACT

This paper provides a sample of a \LaTeX document.

Keywords

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

1. INTRODUCTION

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

5. EXPERIMENTS

6. CONCLUSION

7. REFERENCES

- [1] M. Bowman, S. K. Debray, and L. L. Peterson. Reasoning about naming systems. *ACM Trans. Program. Lang. Syst.*, 15(5):795–825, November 1993.
- [2] J. Braams. Babel, a multilingual style-option system for use with latex's standard document styles. *TUGboat*, 12(2):291–301, June 1991.
- [3] M. Clark. Post congress tristesse. In *TeX90 Conference Proceedings*, pages 84–89. TeX Users Group, March 1991.

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