Suffix Arrays

CMSC 858S

Another Example Suffix Array

```
s = cattcat$
```

- Idea: lexicographically sort all the suffixes.
- Store the starting indices of the suffixes in an array.

```
I cattcat$
2 attcat$
3 ttcat$
4 tcat$
5 cat$
6 at$
7 t$
8 $
```

```
sort the suffixes alphabetically

the indices just "come along for the ride"
```

```
8
6
at$
attcat$
cat$
t$
tcat$
ttcat$
ttcat$
```

index of suffix

suffix of s

Another Example Suffix Array

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sort the suffixes alphabetically

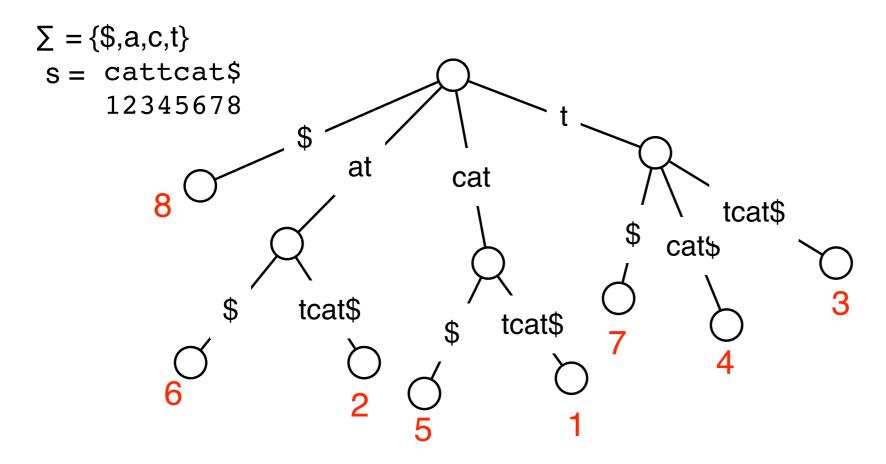
the indices just "come along for the ride"

86251743

index of suffix

suffix of s

Relationship Between Suffix Trees & Suffix Arrays

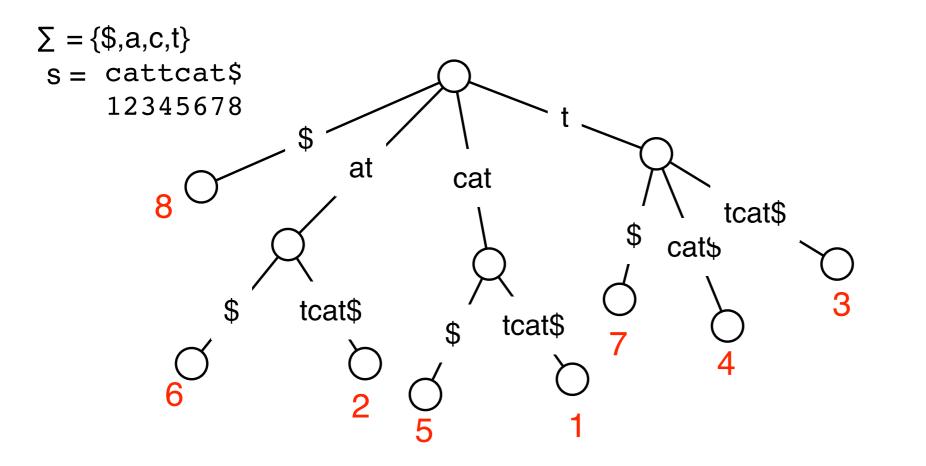


Red #s = starting position of the suffix ending at that leaf

Leaf labels left to right: 8625 1743

Edges leaving each node are sorted by label (left-to-right).

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8|\$

6 at\$

2 attcat\$

5 cat\$

||cattcat\$

7|t\$

4|tcat\$

3 ttcat\$