

Windowing Query

Interval Tree

Query

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## queryIntervalTree( v, $q_x$ )

```
if ( ! v ) return; //base
```

```
if (  $q_x < x_{mid}(v)$  ) {
```

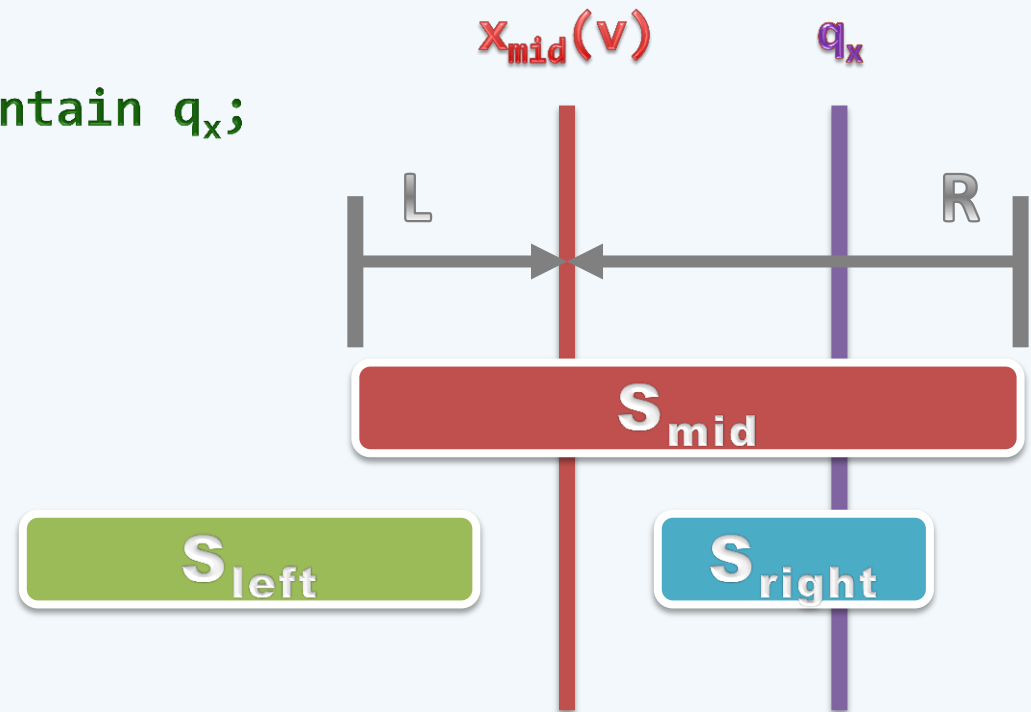
```
    report all segments of  $S_{mid}(v)$  that contain  $q_x$ ;
```

```
    //by a scan of  $L_{left}(v)$ 
```

```
    queryIntervalTree(  $lc(v)$ ,  $q_x$  );
```

```
    //rc(v) can be ignored
```

```
} ...
```



## queryIntervalTree( v, $q_x$ )

...

```
} else if (  $x_{mid}(v) < q_x$  ) {
```

report all segments of  $S_{mid}(v)$  that contain  $q_x$ ;

//by a scan of  $L_{right}(v)$

```
queryIntervalTree(  $rc(v)$ ,  $q_x$  );
```

// $lc(v)$  can be ignored

```
} else //with a probability  $\approx 0$ 
```

report all segments of  $S_{mid}( v )$ ; //both  $rc(v)$  &  $lc(v)$  can be ignored

