Team Reference Document

The University of Manchester - Spirit Monkeys

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1 Algorithms

1.1 Maximum subarray sum

Consider the subproblem of finding the maximum-sum subarray that ends at position k. There are two possibilities:

1. The subarray only contains the element at position k
2. The subarray consists of a subarray that ends at position k - 1, followed by the element at position k

```
int best = 0, sum = 0;
for (int k = 0; k < n; k++) {
  sum = max(array[k], sum + array[k]);
  best = max(best, sum);
}
```