COMS3008A Assignment 2 – Report

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Bitonic Sort

Pseudocode

Function *bitonicMerge(a[ ], low, cnt, dir)*
  if *cnt > 1* **then**
    k ← cnt / 2
    for *i ← low* **to** *low + k* **do**
      if *dir == (a[i] > a[i + k])* **then**
      │ swap a[i] and a[i + k]

      end

    end

    bitonicMerge(a, low, k, dir)
    bitonicMerge(a, low + k, k, dir)

  end

end

Function *bitonicSort(a[ ], low, cnt, dir)*
  if *cnt > 1* **then**
    k ← cnt / 2 bitonicSort(a, low, k, 1)
    bitonicSort(a, low + k, k, 0)
    bitonicMerge(a, low, cnt, dir)

  end

end

This i