

# Algorithms and Data Structures

## Homework 7

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April 5, 2019

### Problem 2.a

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**Algorithm 1** Reversing the linked list

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```
0: procedure REVERSELIST(list)
0:   if list is NULL then
0:     return list
0:   end if
0:   Assume type Node
0:   Node *next  $\leftarrow$  NULL
0:   Node *prev  $\leftarrow$  NULL
0:   Node *current  $\leftarrow$  list
0:   while current is not NULL do
0:     next  $\leftarrow$  (current  $\rightarrow$  next)
0:     (current  $\rightarrow$  next)  $\leftarrow$  prev
0:     prev gets current
0:     current gets next
0:   end while
0:   return prev
```

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