CS 382 Fall 2023

Computer Architecture and Organization

Lab 9 Report

First name	
Last name	
Collaborator	
Pledge	
1 Task 1:	Profiling a Linked List and an Array
Please present y	your experiment record below: either a graph or a chart.

Please explain: why does the two algorithms with both $\mathcal{O}(n)$ complexity, have very different performance when n increases? You need to explain in detail from the perspective of locality .				

2 Task 2: Locality Improved Linked List

Please present your experiment record below: either a graph or a chart.				

Please explain: what is the time complexity of unrolled linked list? How does a unrolled linked list improve the efficiency of traversal in terms of locality?				

The End 🕊