Bio: Awrad Mohammed Ali is a Computer Science Ph.D. candidate in the Intelligence Systems Lab (ISL) at the University of Central Florida (UCF). She successfully defended her dissertation on Feb 26th, 2019 and she will graduate in the Spring semester of this year. Awrad’s research topic "Machine Learning from a Casual Conversation" involves teaching a computer agent how to update its information/knowledge base from unstructured human inputs. Awrad earned her Master’s degree in Computer Engineering from the University of Central Florida in Fall 2014. While pursuing her Ph.D., Awrad worked at UCF as a graduate teaching assistant for several different introductory courses in the Computer Science department. Her duties involved leading recitation sessions, grading assignments/exams, creating lab assignments/materials, and holding office hours. Awrad is passionate about teaching students new skills, learning new techniques and concepts, and challenging herself to solve difficult problems.

“Linked List Data Structure”

Linked lists are linear data structures that have many applications because of the way they store data in computer memory. They can be used to implement Stacks and Queues, and to facilitate adjacency list representations for graphs. In this lecture, I will discuss the linked list data structure in detail. First, I will cover the differences between linked lists and arrays and discuss the pros and cons of each. Later, I will demonstrate how to insert and delete a node from different positions in the linked list. Also, an example of how to traverse a linked list will be shown and how to reverse its contents. Finally, I will conclude with a discussion of doubly-linked lists; I will describe the runtime benefits of using them over singly-linked lists at the cost of increased space complexity.