

# UNIVERSITY OF SOUTH FLORIDA

## *Major Research Area Paper Presentation*

*Learning to generate trajectories of task-oriented object  
manipulation from demonstrations*

by

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*For the Ph.D. degree in Computer Science & Engineering*

*Humans perform interactive manipulation tasks daily, of which a tool fulfills the task while interacting with an object, and the object provides feedback which signifies the progress of the task. Human can also perform a task in different environments. In comparison, it is difficult for robots to perform a task in different environments and perform interactive tasks. We aim to learn from demonstrations of interactive tasks to generate new manipulation trajectories for the tool for new environments in such a way that the feedback provided by the object can be used to modulate the trajectories and complete the tasks. In this document we discuss existing related datasets, describe our own collected dataset, and present existing models for learning and generating task trajectories.*

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THE PUBLIC IS INVITED

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