

UNIVERSITY OF SOUTH FLORIDA

Defense of a Master's Thesis

RoboGrasp: Web Interface for Object Grasping

by

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For the MSCS degree in Computer Science & Engineering

Object grasping has been one of the challenges in robotic field. Here, we present RoboGrasp, web interface, to help robot users on how a robot grasps a given object. RoboGrasp is designed with a novel approach that maps a given object to an existed object grasping demonstration using WordNet similarity measure. Simply, RoboGrasp asks the user to upload an image of their target object and then the web recognizes the object by a deep learning network model trained for object recognition. Next, RoboGrasp maps the recognized object to one of the available similar object and then it displays a video demonstration of how a robot can grasp the given object efficiently. The interface also provides a set of necessary relevant parameters to successfully achieve the desired grasping task.

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THE PUBLIC IS INVITED

Examining Committee

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