3/24/2020

Eduardo Davalos

**THESIS WORK REPORT**

**Background Information**

The goal of this thesis is to create an RGB category-level 6D pose estimation neural network. The field of computer vision is neatly cut into different sections by the task that each sector of the field is trying to resolve, such as object detection, image segmentation, face recognition, and pose estimation. 6D pose estimation is the estimation of two main attributes of an object: translation and rotation. Each attribute requires incorporate distinct 3D information, therefore resulting in 3D + 3D = 6D, hence the name 6D pose estimation. In 6D pose estimation, rotation and translation are determined with respect to the camera’s position and angle.

A picture containing table

Description automatically generated

Figure 1: Rotation and Translation Visualized

**Current Situation**

**Future Work & Conclusion**