

CS x476 - Fall 2021

Project 6: 3D Pose Estimation and Objectron for Object Detection

Setup:

1. Install [Miniconda](#). (If you already have Miniconda installed, you can skip this step)
2. Create a conda environment using the appropriate terminal and command.
 - On **Windows**, open the installed "Anaconda Powershell Prompt".
 - On **MacOS** and **Linux**, you can open a terminal window.
 - To create the project environment: `conda env create -f proj6_configs/proj6_env.yml`
3. Check if the cv_proj3 environment has been created properly.
 - Run: `conda env list`
4. Activate the conda environment.
 - Run: `conda activate cv_proj6`
 - To deactivate it, run: `conda deactivate`
5. Install the project packages.
 - Run: `pip install -e .` inside the repo folder.
 - This is a good practice when setting up a new conda environment that may have pip requirements. It installs the repo as a package in the environment.
6. Install TensorFlow by `pip install tensorflow`
7. Install Mediapipe by `pip install mediapipe`
8. Open the jupyter notebook to work on the project.
 - Run: `jupyter notebook ./proj6_code/proj6.ipynb`
9. Sometimes jupyter notebook couldn't find the conda environment automatically, to solve that you could optionally run `python -m ipykernel install --user --name=cv_proj6`. Then select the right kernel (cv_proj6) inside your jupyter notebook by clicking the "Kernel" tab at the top and select "Change kernel" in the menu.

Testing & Submission:

1. Ensure that all sanity checks are passing
 - Run: `pytest proj6_unit_tests` inside the proj6_code folder.
2. Compress your code into a zip for submission
 - Run: `python zip_submission.py --gt_username <your_gt_username>`