Robot Vision and Computer Vision Lab Introduction

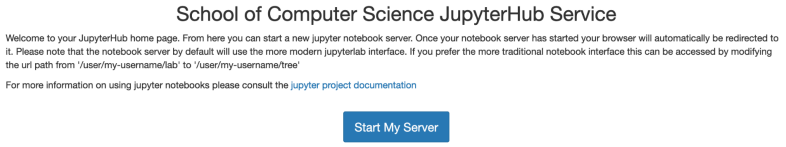
This document will act as an introduction to the lab assignments and how they will work for these modules. This year we will be using python for all of the formative lab assignments in conjunction with Jupyter Notebook. Jupyter notebook is a web-based interactive computing platform that allows running python scripts remotely without having to configure libraries and systems on your own machine.

Accessing Jupyter Notebook

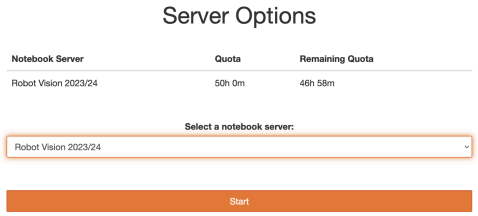
Jupyter Notebook can be accessed at the following url: https://jupyterhub.oc1.aws.cs.bham.ac.uk/hub/home
Guidance on using cs.bham Jupyter can be found here: https://kb.bham.ac.uk/KB16751
If you find you don't have access then please raise an IT Service Desk ticket for the attention of Computer Science:
https://itservicedesk.bham.ac.uk/itportal?id=sc_cat_item&sys_id=5d5340181bf8a1500e70b726464bcb83&sysparm_category=945094bddb9c3f005e689a56db9619fd.

Quick Guide

When you open https://jupyterhub.oc1.aws.cs.bham.ac.uk/hub/home you should be greeted with a page that looks like:



Click "Start My Server". Once clicked we should be greeted with a page that resembles the following:



Here you will select your current module. You are provided with a set quota of hours which determines the maximum time that your server can run. We have set the quota to a time that should sufficiently allow for the completion of all lab exercises, however if you have any issues with this please let us know. It is important for this reason that you end your jupyter session when you are finished coding to preserve your quota.

Once we are happy with our module selection we can click start and initiate the server startup. This process can take some time so prepare to be patient.

Assignment 1

The instructions and the code for the labs can be found on GitHub: https://github.com/JonFreer/cv-assignments. The repo will be updated weekly as new lab exercises are released. In order to add the code to your Jupyter instance, navigate to the terminal and execute the command:

git clone https://github.com/JonFreer/cv-assignments.git

You should now have a directory which contains Lab1, the first lab exercise. File lab1.ipynb contains the lab instructions and template code.