

# Troubleshooting using CIP

During previous iterations of the Deep Learning Exercises, we have encountered certain issues repeatedly when working with the machines in the Huber-CIP. If you have an issue with your machine and something is not working as it should be, this sheet may help you to figure out what went wrong and how to solve it. **Important:** Before deleting any files, make sure you do not need them anymore or save them somewhere else!

## What is quota and what can I do once I have exceeded it?

- The quota is the limit set by the admins. It's to prevent cip-users from allocating too much disk space.
- You can check your quota by execution of the following command:

```
cip-quota
```

- Once you have exceeded your limit you have two opportunities:

1. Execute the

```
ncdu
```

command and browse through your personal files, identify the files that need much space, and delete those with the key 'd' or save them somewhere else outside of cip.

2. Every student has the option to extend the quota by adding a user-specific folder in the directory '/proj/ciptmp'. For more informations go to /proj/ciptmp and carefully read the README there.

## Problems with installing Python packages using pip:

- You may need or want to install additional Python packages.
- In order to install Python packages globally, one needs admin rights. Not suitable for us.
- Instead of global installations, local installations are possible. These local installations are then only available for the user who installed the respective package. In order to install locally, use the `-user` flag:

```
pip install --user scikit-image
```

- Consider: Installing packages costs you quota.

## Problems with locally installed Python versions:

- The deep learning class is not the only class using Python. Thus you may have a local Python version installed, e.g., if you attended Pattern Recognition Deluxe.
- Since we are using the global install of python3, one can encounter some conflicts with an additional local install of Python, as we have experienced that multiple time.
- You can solve this conflict by getting rid of the local Python, i.e., by deleting the directory it is stored in.
- Note: You are the master of what you do with your account. We do not take any responsibilities if you delete one of your own files you shouldn't. Luckily nothing really can be seriously broken, since you typically have no admin rights.
- The most convenient way of deleting your local Python version is to remove the whole `.local` folder. In order to do this, execute the following command:

```
rm -r ~/.local
```

- Notice: `/.local` is also the place where all packages installed with the `-user` command are stored, i.e., they may have to be reinstalled.

## Hints on executing unit tests in PyCharm:

- We recommend to use PyCharm for code development with Python.
- PyCharm has an easy-to-use feature for a convenient way of running unit tests. Take a look into this.
- As we proceed in this class, we will continuously extend our framework by adding module by module. To avoid conflicts within PyCharm, we have to mark our `src` folder as 'Source Root's for each exercise. Read this for further information.