



Deep Learning Toolkit

(Environment & Code Editor)

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Outline

- **Environment, Code Editor**
- Python
- Tensor library – numpy and einops
- PyTorch, Timm
- Huggingface (HF), Gradio, Streamlit
- HF Accelerator, GitHub
- Machines – Colab, DeepNote, Kaggle, SageMaker
- Other tools

Container Environment

Anaconda



venv

Unix/macOS

Windows

```
python3 -m pip install --user virtualenv
```

Container Environment

Anaconda

```
conda create --name dl_course
```

venv

```
python3 -m venv dl_course
```

Container Environment

Anaconda

```
conda activate dl_course
```

venv

```
source dl_course/bin/activate
```

Python package installer

`pip3 or pip`

Example:

```
pip3 install torch torchvision torchaudio
```

`conda`

Example:

```
conda install pytorch torchvision torchaudio -c  
pytorch
```

Anaconda – Machine Learning Toolkit



<https://www.anaconda.com/>

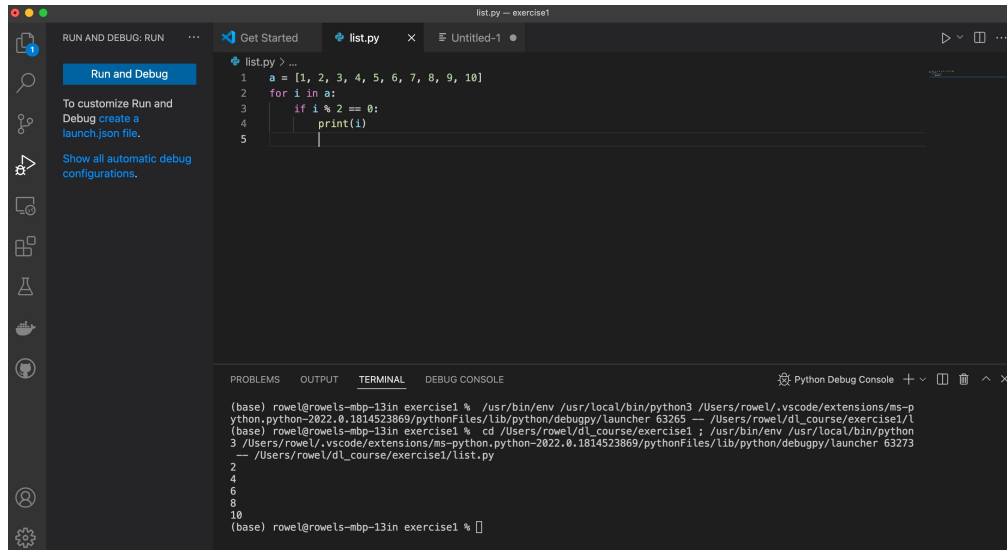
venv — lightweight virtual environment

```
pip3 install virtualenv
python3 -m venv dl_course
source dl_course/bin/activate
which python3
/Users/rowel/dl_course/bin/python3
which pip3
/Users/rowel/dl_course/bin/pip3
pip3 install scipy
pip3 install torch torchvision torchaudio
```


Code Editor

Text Editor / IDE

Visual Studio Code



✓ Recommended for its features

vim



✓ Recommended for its portability

Reference

- <https://code.visualstudio.com/>
- <https://www.vim.org/>
- <https://www.anaconda.com/>
- <https://www.python.org/>

End