
dlproject

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Benjamin D. Killeen

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DLPROJECT

An opinionated template for deep learning projects.

1.1 Description

dlproject believes three things.

1. All code should be documented.
2. All experiments should be logged.
3. Configs are better than constants.

1.2 Installation

These instructions assume you are using a linux machine with at least one GPU (CUDA 11.1).

1. Create a new repository using this template and change to the root directory. For example,

```
git clone git@github.com:benjamindkilleen/dlproject.git
cd dlproject
```

2. Install dependencies using either [Anaconda](#) (preferred) or Pip:

- **Anaconda:** modify `environment.yml` to suit your needs. Then run:

```
conda env create -f environment.yml
conda activate dlproject
```

This will create a new environment with the project installed as an edit-able package.

- **Pip:** Install [Pytorch](#) to ensure GPU available. Then:

```
pip install -r requirements.txt
pip install -e .
```

1.3 Usage

The project is separated into “experiments,” which are just different main functions. Use the `experiment` group parameter to change which experiment is running. For example:

```
python main.py experiment=mnist
```

The results are then neatly sorted into the newly-created `results` directory (ignored by default). This is important for reproducibility, utilizing Hydra’s automatic logging and config storage.

1.3.1 Documentation

Documentation and tutorials for `dlproject` are available [here](#). You should document your code as you go. If you use Visual Studio Code, [this](#) is an extension which will create Google style docstrings automatically.

To build the docstrings you write into a local static web-page, run

```
pip install -r docs/requirements.txt
sphinx-apidoc -f -o docs/source dlproject
cd docs
make html
```

And open `/docs/build/html/index.html` in your browser.

1.3.2 Citation

```
@article{YourName,
  title={Your Title},
  author={Your team},
  journal={Location},
  year={Year}
}
```

DLPROJECT PACKAGE

2.1 Subpackages

2.1.1 `dlproject.datasets` package

Submodules

`dlproject.datasets.mnist` module

Module contents

2.1.2 `dlproject.models` package

Submodules

`dlproject.models.classifier` module

Module contents

2.2 Submodules

2.3 `dlproject.experiments` module

2.4 `dlproject.logging` module

2.5 `dlproject.utils` module

2.6 Module contents

INDICES AND TABLES

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- `modindex`
- `search`