Announcing Pipenv!

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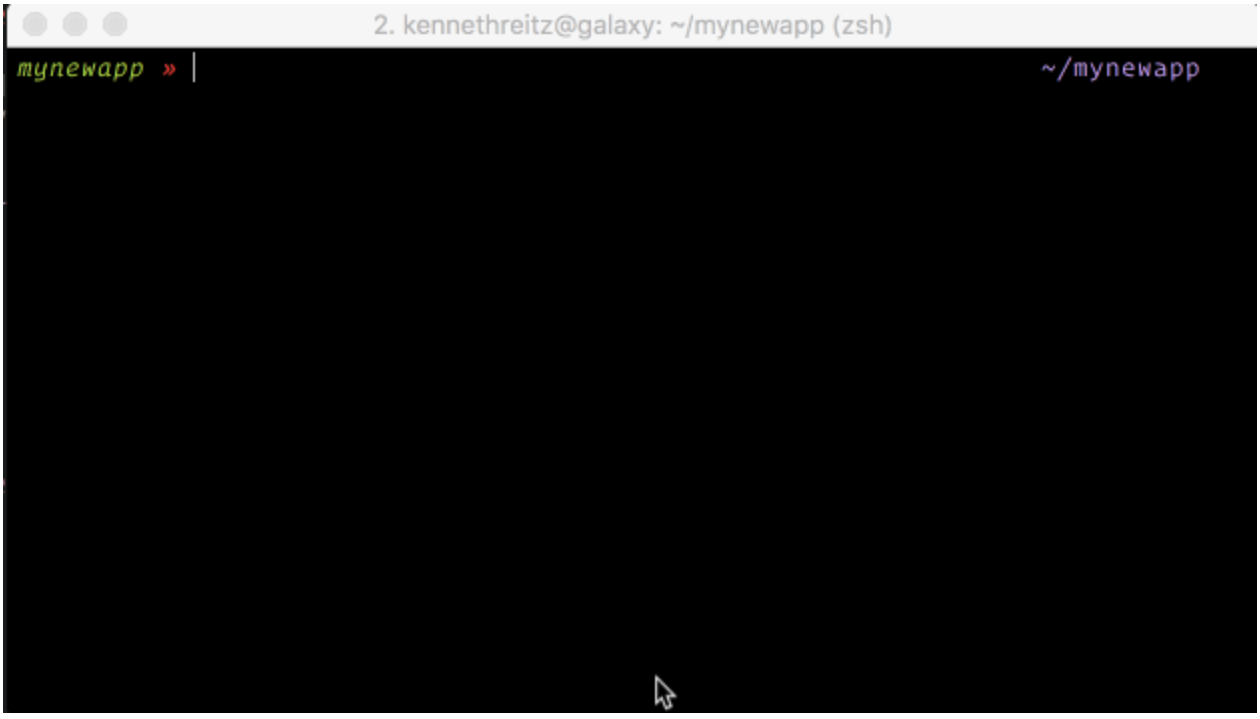
2 min read • 496 words

Themes: Recursive

I wrote a new tool this weekend, called Pipenv. Check it out on GitHub!



Pipenv is an experimental project that aims to bring the best of all packaging worlds to the Python world. It harnesses Pipfile, pip, and virtualenv into one single toolchain. It features very pretty terminal colors.

It automatically creates and manages a virtualenv for your projects, as well as adds/removes packages from your `Pipfile` as you install/uninstall packages. The `lock` command generates a lockfile (`Pipfile.lock`).

Features

- Automatically finds your project home, recursively, by looking for a `Pipfile`.
- Automatically generates a `Pipfile`, if one doesn't exist.
- Automatically generates a `Pipfile.lock`, if one doesn't exist.
- Automatically creates a virtualenv in a standard location (`project/.venv`).
- Automatically adds packages to a `Pipfile` when they are installed.
- Automatically removes packages from a `Pipfile` when they are uninstalled.
- Also automatically updates pip.

The main commands are `install`, `uninstall`, and `lock`, which generates a `Pipfile.lock`. These are intended to replace `$ pip install` usage, as well as manual virtualenv management.

Basic Concepts

- A virtualenv will automatically be created, when one doesn't exist.
- When no parameters are passed to `install`, all packages specified will be installed.
- When no parameters are passed to `uninstall`, all packages will be uninstalled.
- To initialize a Python 3 virtual environment, run `$ pipenv --three` first.
- To initialize a Python 2 virtual environment, run `$ pipenv --two` first.
- Otherwise, whatever `$ which python` will be the default.

Other Commands

- `shell` will spawn a shell with the virtualenv activated.
- `run` will run a given command from the virtualenv, with any arguments forwarded (e.g. `$ pipenv run python`).
- `check` asserts that PEP 508 requirements are being met by the current environment.

Usage

```
$ pipenv
Usage: pipenv [OPTIONS] COMMAND [ARGS]...

Options:
  --where            Output project home information.
  --bare             Minimal output.
  --three / --two    Use Python 3/2 when creating virtualenv.
  --version          Show the version and exit.
  --help             Show this message and exit.

Commands:
  check      Checks PEP 508 markers provided in Pipfile.
  install    Installs a provided package and adds it to...
  lock       Generates Pipfile.lock.
  run        Spans a command installed into the...
  shell      Spans a shell within the virtualenv.
  uninstall  Un-installs a provided package and removes it...
  update     Updates pip to latest version, uninstalls all...

$ pipenv --where
Pipfile found at /Users/kennethreitz/repos/kr/pip2/test/Pipfile.
Considering this to be the project home.

$ pipenv install
Creating a virtualenv for this project...
...
No package provided, installing all dependencies.
Virtualenv location: /Users/kennethreitz/repos/kr/pip2/test/.venv
Installing dependencies from Pipfile.lock...
...
To activate this project's virtualenv, run the following:
$ pipenv shell

$ pipenv install pytest --dev
Installing pytest...
...
Adding pytest to Pipfile's [dev-packages]...

$ pipenv lock
```

```
Assuring all dependencies from Pipfile are installed...
Locking [dev-packages] dependencies...
Locking [packages] dependencies...
Note: your project now has only default [packages] installed.
To install [dev-packages], run: $ pipenv install --dev

$ pipenv uninstall
No package provided, un-installing all dependencies.
Found 25 installed package(s), purging...
...
Environment now purged and fresh!

$ pipenv shell
Spawning virtualenv shell (/bin/zsh).
(test)$
```

Installation

```
$ pip install pipenv
```