Config Files
Software Engineering for Scientists
https://github.com/swe4s/lectures/tree/master/src/config_files

Stick with `argparse`

use_argparse.py

```python
import argparse

parser = argparse.ArgumentParser(fromfile_prefix_chars='@')

parser.add_argument('-a', action="store_true", default=False)
parser.add_argument('-b', type=str)
parser.add_argument('-c', type=int)

args = parser.parse_args()

print(args.a, args.b, args.c)
```

config.txt

```
-a
-b
"In argparse"
-c=99
```

```
$ python use_argparse.py -a -b "In cmd line" -c 3
True In cmd line 3

$ python use_argparse.py @config.txt
True "In argparse" 99

$ python use_argparse.py @config.txt -b "Overwrite"
True Overwrite 99
```

YALM config file

```
$ pip install pyyaml
```

use_yaml.py

```python
import argparse
import yaml

parser = argparse.ArgumentParser()

parser.add_argument('--config', type=str, required=True)
args = parser.parse_args()

f = open(args.config, 'r')
config = yaml.load(f, Loader=yaml.FullLoader)
f.close()

print(config['a'], config['b'], config['c'])
```

config.txt

```
a: True
b: "In YAML"
c: 878
```

```
$ python use_yaml.py --config config.yml
True In YAML 878
```

JSON config file

use_json.py

```python
import argparse
import json

parser = argparse.ArgumentParser()

parser.add_argument('--config', type=str, required=True)
args = parser.parse_args()

f = open(args.config, 'r')
config = json.load(f)
f.close()

print(config['a'], config['b'], config['c'])
```

config.json

```json
{"a":"True",
 "b":"In JSON",
 "c":878}
```

```
$ python use_json.py  --config config.json
True In JSON 87
```