

所有操作均在 openeuler 23.09 下进行

## spec文件编译

### 01. 安装相关依赖:

```
1 yum install python3-hatchling \  
2     cmake \  
3     python3-devel \  
4     python3-astunparse \  
5     python3-pbr \  
6     python3-setuptools_scm \  
7     python3-wheel \  
8     python3-numpy \  
9     g++
```

### 02. 建立工作目录:

```
rpmdev-setuptree
```

### 03. 将源码文件 `pytorch-v2.0.1.tar.gz` 复制到 `~/rpmbuild/SOURCES`

### 04. 将 `pytorch.spec` 文件复制到 `~/rpmbuild/SPECS`

### 05. 编译项目:

```
rpmbuild -ba ~/rpmbuild/SPECS/pytorch.spec
```

### 06. 编译完成后可在 `~/rpmbuild/PRMS` 下查找编译结果

编译完成后项目目录如下:

```
|— BUILD  
|— BUILDROOT  
|— RPMS  
|   |— x86_64  
|       |— python3-pytorch-2.0.1-2.x86_64.rpm  
|       |— pytorch-debuginfo-2.0.1-2.x86_64.rpm  
|       |— pytorch-debugsource-2.0.1-2.x86_64.rpm  
|       |— pytorch-help-2.0.1-2.x86_64.rpm  
|— SOURCES  
|   |— pytorch-v2.0.1.tar.gz  
|— SRPMS  
    |— pytorch-2.0.1-2.src.rpm
```

# 编译后的rpm包安装

## 01. 安装相关依赖:

```
Bash
1 yum install openblas \
2     python3-filelock \
3     python3-jinja2 \
4     python3-networkx \
5     python3-sympy \
6     python3-typing-extensions
```

## 02. 安装rpm包

```
rpm -ivh python3-pytorch-2.0.1-2.x86_64.rpm
```

```
[root@VM-0-17-linux x86_64]# rpm -ivh python3-pytorch-2.0.1-2.x86_64.rpm
Verifying... ##### [100%]
Preparing... ##### [100%]
Updating / installing...
 1:python3-pytorch-2.0.1-2 ##### [100%]
```

## 03. 运行一些基础张量运算测试安装:

```
[root@VM-0-17-linux rpmbuild]# python3
Python 3.11.4 (main, Sep 21 2023, 23:14:05) [GCC 12.3.1 (openEuler 12.3.1-16.oe2309)] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import torch
>>> x = torch.rand(2, 3)
>>> print(x)
tensor([[0.4428, 0.4651, 0.6813],
        [0.8353, 0.5688, 0.9931]])
>>> print(x.shape)
torch.Size([2, 3])
>>> y = x * 2
>>> y
tensor([[0.8856, 0.9301, 1.3625],
        [1.6705, 1.1376, 1.9862]])
>>> |
```