3.1.3 Autograd

- **Autograd :**
  - _(Gradient Decent)_
  -
  -
  - Autograd

$J(w)$

Initial weight   Gradient

Global cost minimum

$J_{min}(w)$

w

1.

```
import torch
```

```
#          1.0
w = torch.tensor(1.0, requires_grad=True)
```

- requires_grad=True   ,   Autograd   w   w.grad

```
a = w*3
```

- a = w x 3

```
l = a**2
```

- a = w x 3   l

  $l = a^2 = (3w)^2 = 9w^2$

```
# l    w                    backward()
l.backward()
print('l    w                {}'.format(w.grad))
```

l   w   18.0

- l   backward()   w.grad   w   w   18

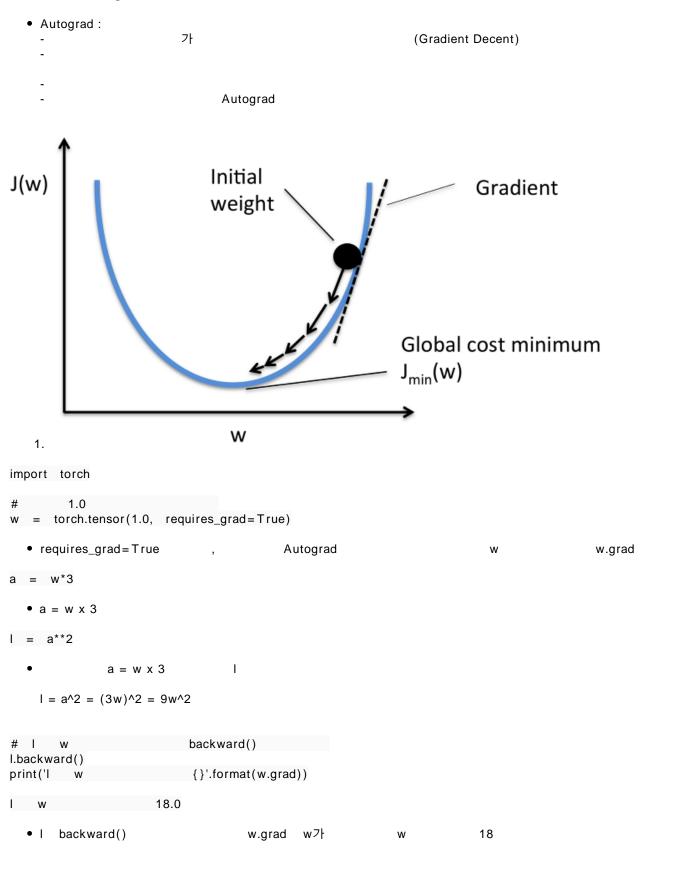
clipboard-202203211950-ehe7w.png   44.3 KB   2022-03-21