

Writing my own class...

```
class Meta_Ridge_12Dim:
```

```
    def __init__(self, alpha):
```

```
        self.alpha = alpha
```

```
        self.coef_ = None
```

```
        self.intercept_ = None
```

$$W = (X^T \cdot X + \alpha I)^{-1} \cdot (X^T \cdot Y)$$

```
    def fit(self, X_train, Y_train):
```

```
# for a in range(X_train.shape[0]): # No need for iteration & required...
```

```
X_train = np.insert(0, 1, axis=1)
```

```
I = np.identity(X_train.shape[1])
```

~~result = np.linalg.inv(X_train)~~

```
result = (np.linalg.inv(np.dot(X_train.T, X_train) + self.alpha * I) . dot(X_train.T, Y_train)))
```

```
self.intercept_ = result[0]
```

```
self.coef_ = result[1:]
```

```
def predict(self, X_train):
```

```
return np.dot(self.coef_, X_train) + self.intercept_
```