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Thu Mar 21 11:49:10 2024
src/rmsprop.pv
   1: def iterate(self):
   2:
           import numpy as np
   3:
           self. x value = self. start
   4:
           old x value = None
    5:
           self. iteration = 0
    6:
           self._sum = np.zeros(self._x_value.shape)
   7:
           alpha n = np.zeros(self. x value.shape)
   8:
           alpha_n.fill(self._step_size)
    9:
           self._converged_value = False
  10:
           self. grad value = self. gradient(self. x value)
           self._step_coeff = self._step_size
  11:
  12:
  13:
           vield self.state dict()
  14:
  15:
           while not self._converged_value:
  16:
               self. iteration += 1
  17:
               if self._max_iter > 0 and self._iteration > self._max_iter:
  18:
                   break
  19:
               self._grad_value = self._gradient(self._x_value)
  20:
               old x value = self. x value
  21:
               self._x_value = self._x_value - alpha_n * self._grad_value
  22:
               self._sum = self._beta * self._sum + (1-self._beta) * (self._grad_value**2)
  23:
               alpha_n = self._step_size / (self._sum**0.5+self._epsilon)
  24:
               self._step_coeff = alpha_n
  25:
               self._converged_value = self._converged(self._x_value, old_x_value)
  26:
               vield self.state dict()
```