Finding a cubic interpolant

1分

In this problem, you will write code to find a cubic polynomial interpolant.

INPUT:

- x , a 4-vector of x coordinates
- y , a 4-vector of function values $f(x)$
- xp , a set of points where the interpolant should be plotted (see given initial code)

OUTPUT:

- `coeffs` , an array of coefficients $[c_0, c_1, c_2, c_3]$ so that $c_0 + c_1 x + c_2 x^2 + c_3 x^3$ interpolates y at the points in the array x

评分代码 (点击查看)

起始代码 (点击查看)

回答*

```
import numpy as np
import numpy.linalg as la
import matplotlib.pyplot as pt

V = np.zeros((4,4))
V[:,0] =



coeffs =

pt.plot(xp, coeffs[0] + coeffs[1]*xp + coeffs[2]*xp**2 + coeffs[3]*xp**3)
pt.plot(x, y, "o")
```

按F9以打开/关闭全屏模式. 在 用户信息 (/profile/) 中设置编辑器模式.

保存回答 | 提交用于评分的回答

(您仍然可以在提交**本问题**后修改回答)