

CSE-5368-001Neural Networks

Spring 2024 Quiz 03

Consider the following performance surface

$$F(X) = 2x_1^2 - 3x_1x_2 + 5x_1 - 4x_2$$

Given the initial point $\begin{bmatrix} 2 \\ 1 \end{bmatrix}$, take **two steps** of the **steepest descent algorithm**, minimizing along a line **at each step**.

Show the resulting position after each step.