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Assignment: Multi-class Classification and Neural Networks

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Tutorial: ex3 oneVsAll()

Tom Mosher · Mentor · a year ago · Edited



all_theta is a matrix, where there is a row for each of the trained thetas. In the exercise example, there are 10 rows, of 401 elements each. You know this because that's how all_theta was initialized in line 15 of the script template.

(note that the submit grader's test case doesn't have 401 elements or 10 rows - your function must work for any size data set - so use the "num_labels" variable).

Each call to fmincg() returns a theta vector. Be sure you use the lambda value provided in the function header.

You then need to copy that vector into a row of all_theta.

The oneVsAll.m script template contains several Hints and a code example to guide your work.

Type these commands in your workspace to see how to copy a vector into a matrix:

```
1 Q = zeros(5,3)      % create a test matrix of all-zeros
2 v = [1 2 3]';       % create a column vector
3 Q(2,:) = v           % copy v into the 2nd row of Q
```

The syntax "(2,:)" means "use all columns of the 2nd row".

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