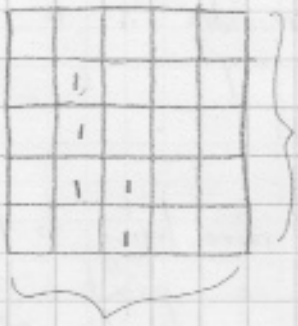
Weight Gradient 1.0

Game Gradient: Calculate gradient of window

Need to make 2-D Array of Tile spaces.
- Python doesn't do this inherently.



Blank tiles have weight 0.
Snake has weight of 1.
starting from head calculate adjacent weights

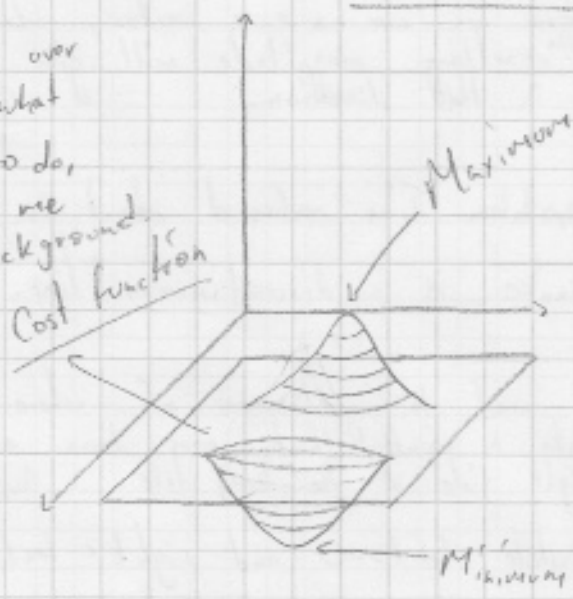
len(grid) should equal 400 (20·20)

Need to calculate weighted average of every node (Tile) in the window. This is to represent places on window that's "heaviest" based on how close or far away a Tile is to the snake.

[On creation of object every Tile's weight is 0]

This is known as Gradient Descent

I think is over complicating what I'm trying to do, but it gives me a good background.



The whole point of this is to minimize the cost function.

Might be a useful equation:

cost function → $f(m,b) = \frac{1}{N}\sum_{i=1}^{n}(y_i - mx_i + b)^2$

where m & b are weight and bias.

- our bias is 0.
- Weight is 1 where snake is.
- x is collection of nodes
- y is collection of nodes

Problem with this is it doesn't help me calculate the gradient itself.

Neat idea though. I can use this in the future.