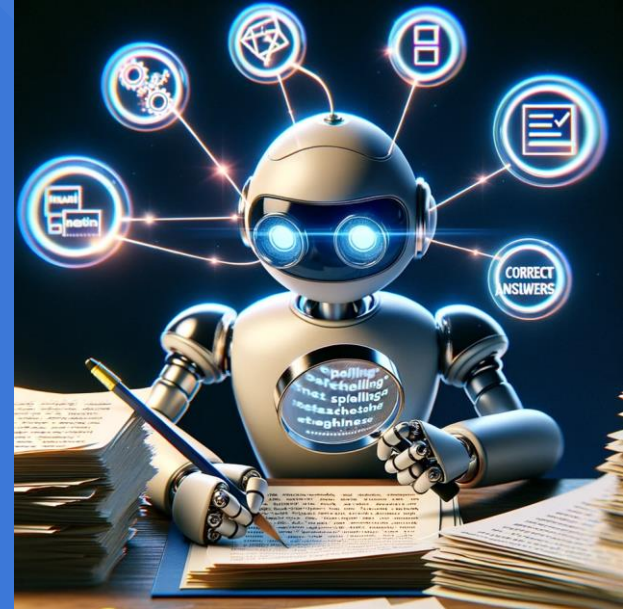


# Unveiling the Magic of Neural Networks: Weights, Bias, and Activation Functions



Team Name: International Neural Intelligence



# Introduction: The Robot Teacher's Secret

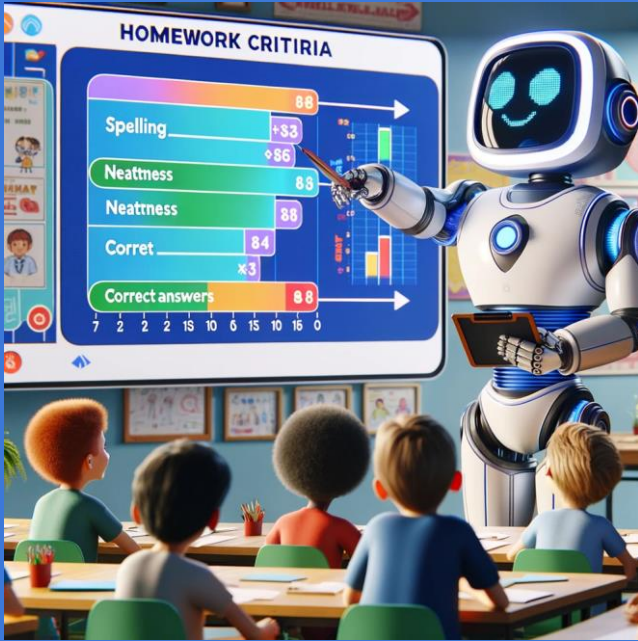
Welcome everyone!

Let's dive into the fascinating world of neural networks.

Imagine you have a robot teacher that can grade your homework super fast.  
How do you think it will calculate what grade to give you?

Today, we will uncover this secret by talking about three magical ingredients the robot teacher will use: weights, biases, and activation functions.

# Weights - The Robot's Grading Criteria



Weights are like the robot's list of what's important in your homework. Just like your teacher looks for spelling, neatness, and correct answers, the robot has weights to define how these things will impact your final grade.

Example: If spelling is really important for your English homework, the robot's weight for spelling will be high, so it pays extra attention to that.

## Bias - The Robot's Starting Point

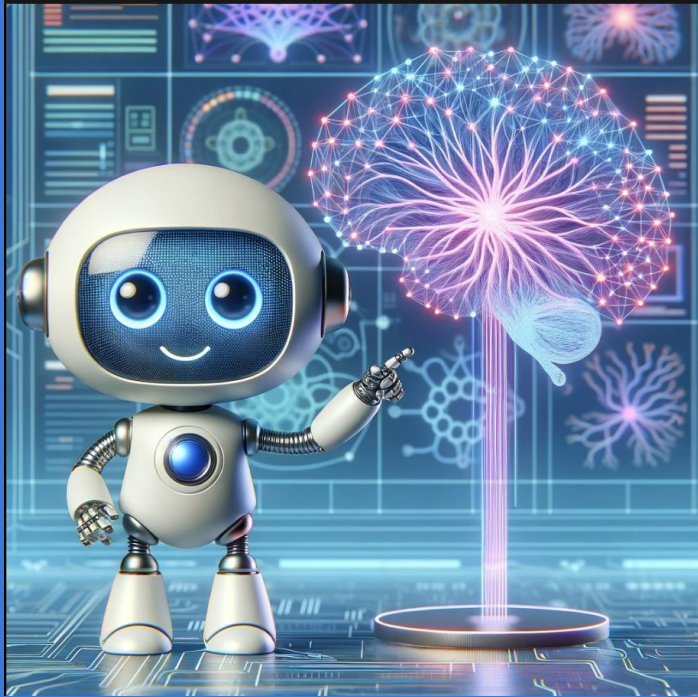
Bias is the robot's initial guess before it starts grading. It's like the robot's first impression of you and your work.

Example: The robot might start with a bias that everyone did well, and then it adjusts from there based on what it finds in your homework.

On the other hand, the robot might start with a bias against students who frequently engage in excessive conversation during class or who regularly arrive late, impacting its initial stance before even examining their assignments.



# Activation Functions - The Robot's Decision Process



This is how the robot makes its final decision on your grade. It's like the robot's brain working through a "yes or no" checklist and doing some math to add up the weights and biases.

Example: The robot uses the activation function to decide whether a question should be considered or not. "If the spelling is mostly correct and the answers are right, then this is a right answer".



## Conclusion: The Magic Behind the Grades

Just like a human teacher, the robot teacher uses weights and biases to look at your homework and activation functions to decide on your grade.

It's amazing how we can teach robots to do things like grading homework, isn't it? With weights, biases, and activation functions, robots can help teachers have more time for fun activities with you!



# Q&A: Time to Ask the Robot Teacher!

Feel free to ask any questions about how the robot teacher works!