

# Predicting Sport Results BY HANNES JOHANSSON & JAMES HALL



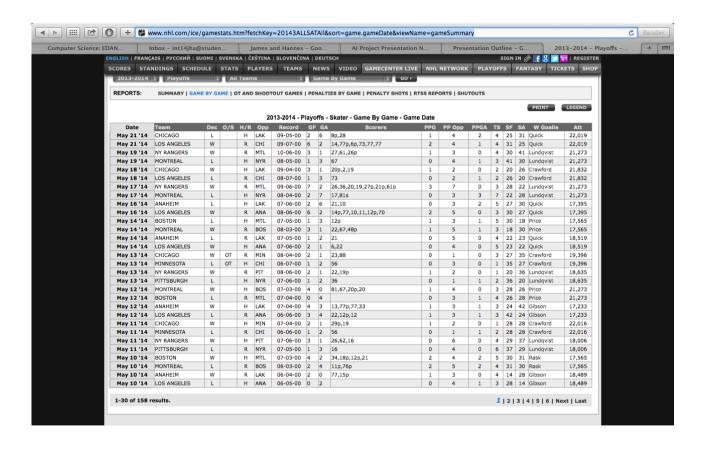


# Our Project Idea





#### Available Data





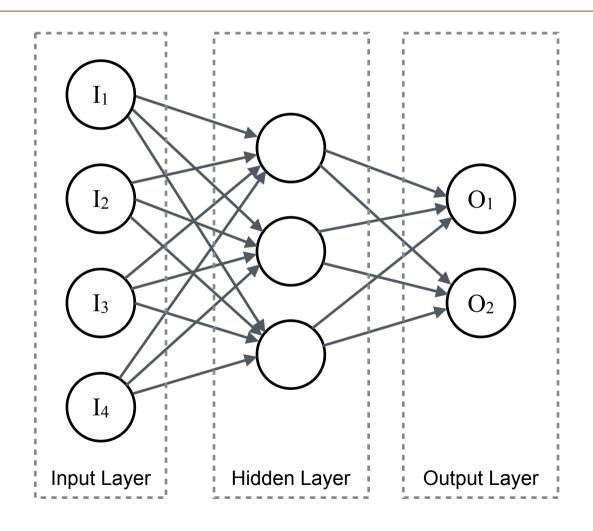
#### Artificial Neural Networks



- Inspired by biology
- Human brains have
  ~85,000,000,000 neurons

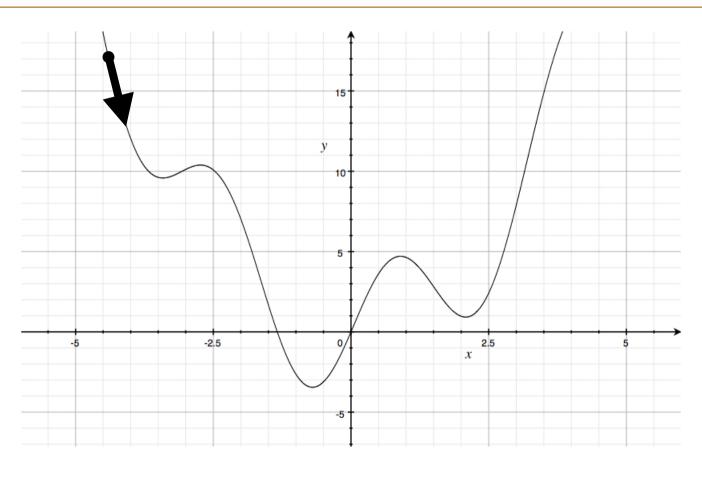


#### Neural Net Model



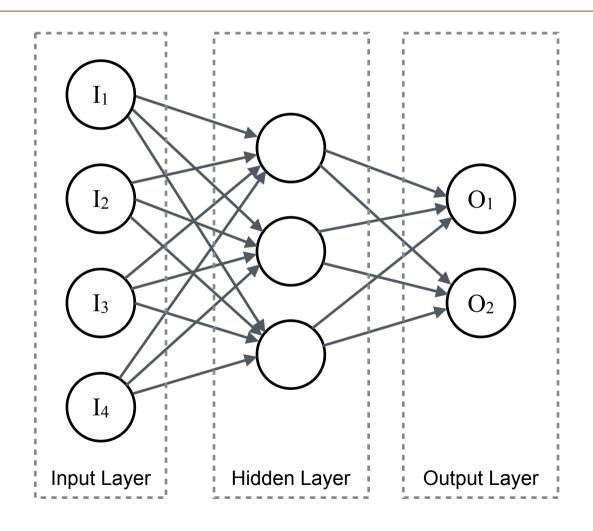


## Gradient Descent



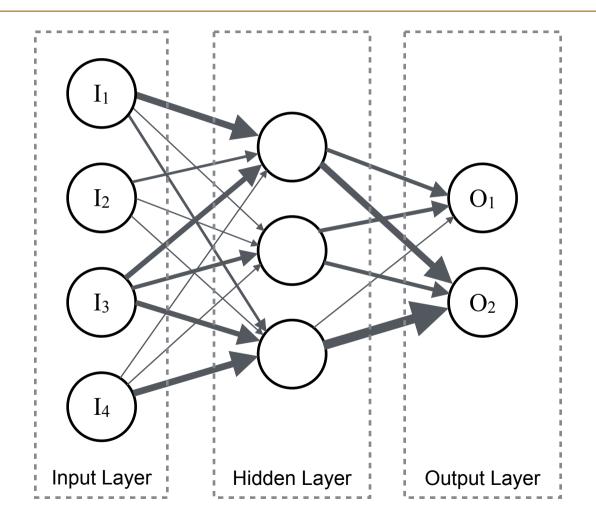


#### Neural Net Model



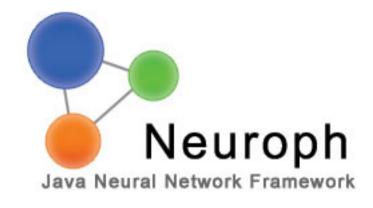


#### Trained Neural Net





# Programming Environment



- Neuroph framework
- MySQL database
- Java 1.8
- 15 classes across 3 packages



# What We're Predicting

- Parallel neural nets
- Number of goals
- Outputs are combined

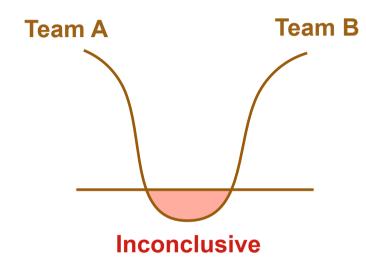


#### Our Neural Nets





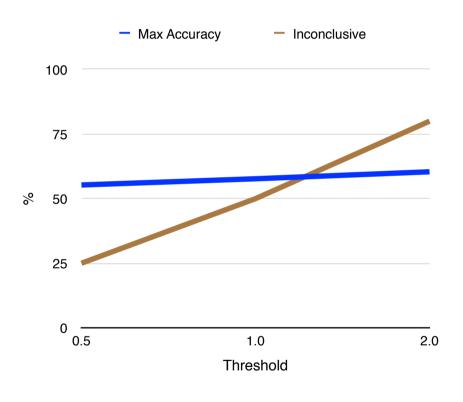
#### Evaluation



- Number of incorrect goals
- Exact predictions
- Winner/loser
- Threshold



#### Our Results



- Accuracy goes from 55% to 60%
- Inconclusive goes from 25% to 80%
- Last-Game-Difference input



## Possible Improvements

- More inputs
- More data
- Multiple passes
- Other learning methods



