Graph Neural Networks for sports prediction

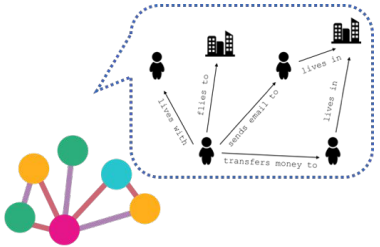
Sports

- AI and data science in sports is a massively growing field
- Traditionally, decisions made by coaches who devoted their entire life to master the game
- New era of big data has shown trends that were not known even to the most knowledgeable in their sport
- Sports are not as random as it may seem

Graphs

- Homogeneous graphs and Heterogeneous graphs
- Heterogeneous graphs can do a really good job of capturing connections between various aspects in sports
- Node edge connections
  - Players - play for - team
  - Certain Players - play with -certain other players
  - Team -plays in - game
- Nodes and edges can have features
  - Player has scored 64 points
  - Team has 20 wins and 13 losses
  - Game is located in California with 80% capacity

homogeneous



heterogeneous

Graph Neural Networks

- Able to learn high dimensional relationships from the nodes and edges
- Can use what it learns from data to predict unknown outcomes
- Can use players, teams, and game and get classification of win or loss

To the code ->