

Name: Rediet Girmay

ID: GSE/0945/17

Proposed Title:

Modeling NBA Player Impact: A Bayesian Network Approach for Performance Prediction

Project Description:

This project will develop a Bayesian Network to model probabilistic relationships between NBA player attributes, game context variables, and performance outcomes. Using real player statistics from Basketball-Reference.com, the model will learn conditional probability distributions to analyze how factors like player role, team context, and historical performance influence game results. The implementation will demonstrate core PGM concepts including network structure design, parameter learning, and probabilistic inference through sports analytics applications.