



VICTORY IN GRAPH

:Battle game result prediction using
heterogeneous graph

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Main Idea

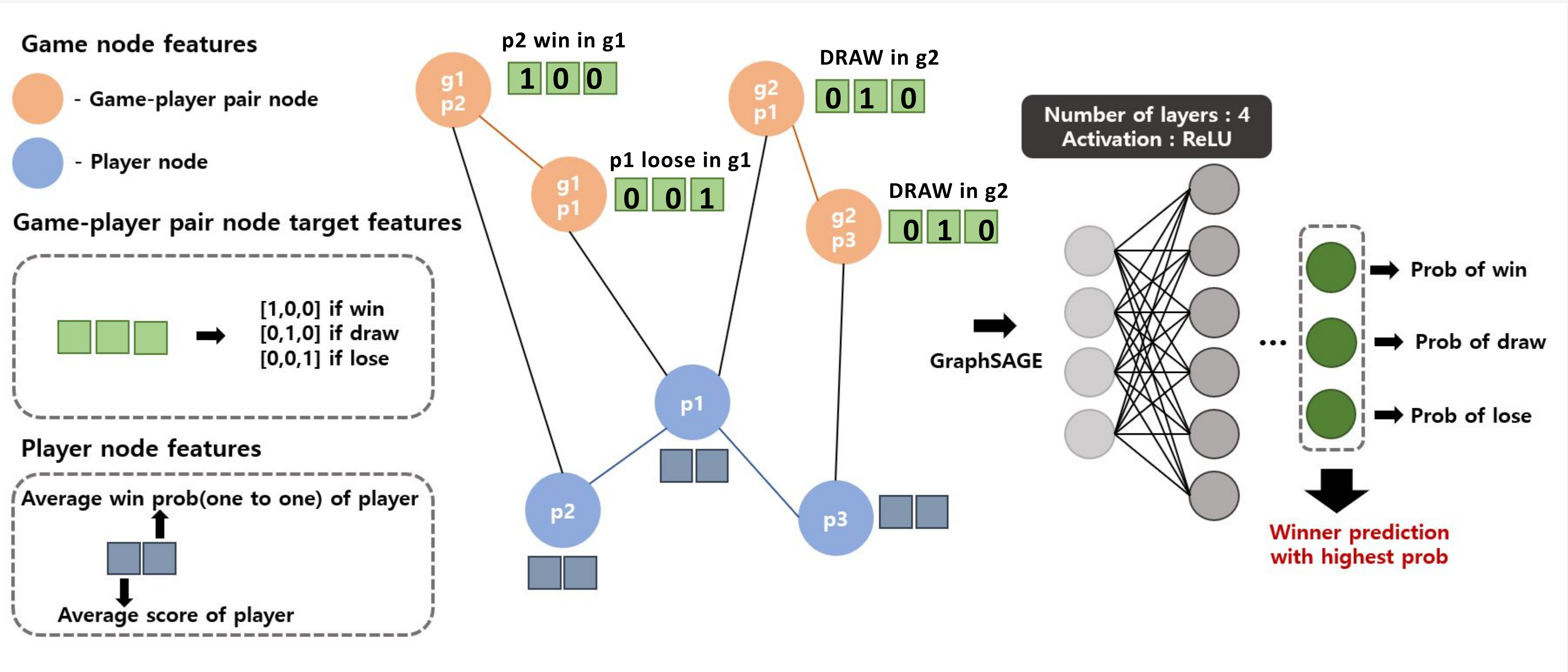
1. Construct a **Heterogeneous graph**
2. Training with **GraphSAGE**
3. Use **Pagerank** and **Average scores**

Task 1


Winner prediction



1. Construct a **Heterogeneous graph**
2. Training with **GraphSAGE**
3. Use **Pagerank** and **Average scores**



Task 1 Result

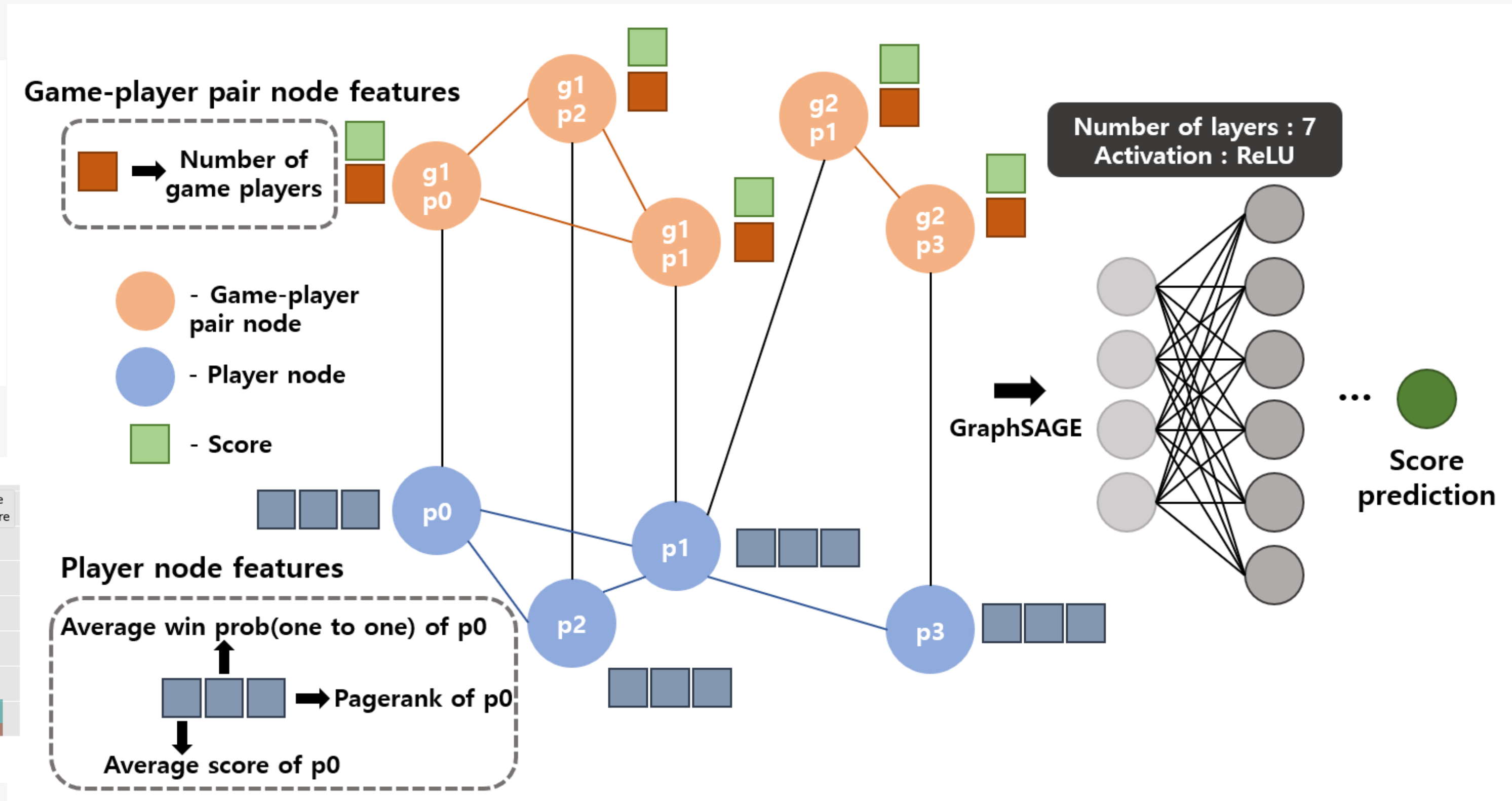
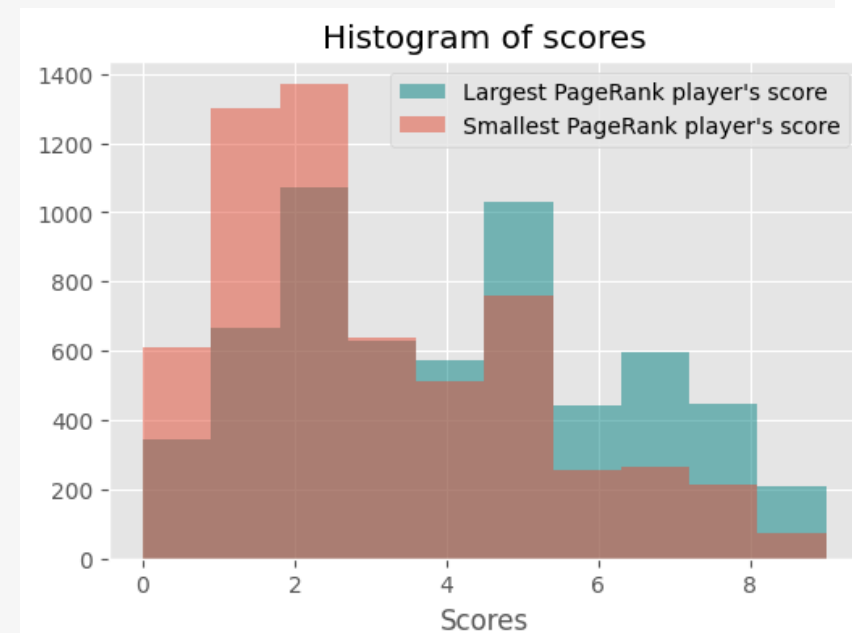
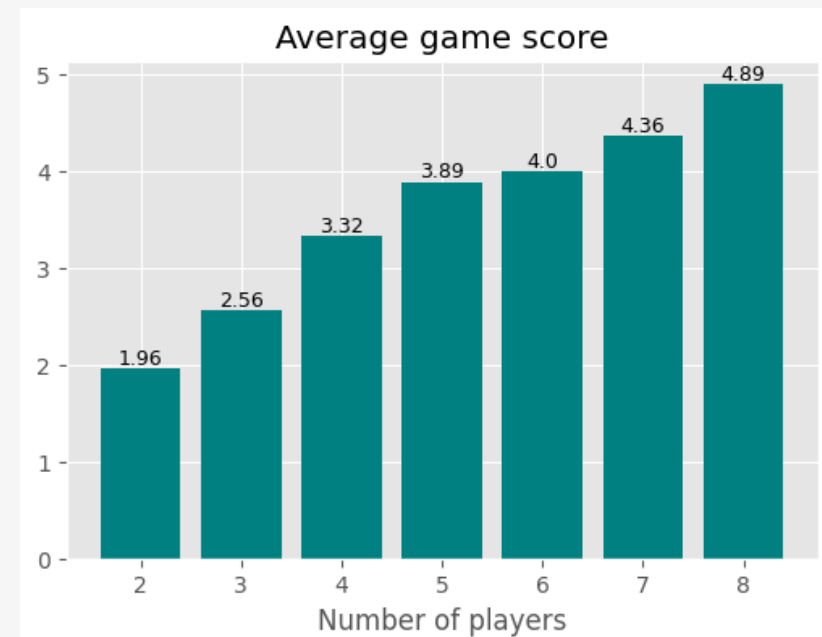
Method	Validation accuracy
Random	50.48
Counting	67.33
Heterogeneous graph with GraphSAGE	79.70 

Task 2

Score prediction



1. Construct a **Heterogeneous graph**
2. Training with **GraphSAGE**
3. Use **Pagerank** and **Average scores**



Task 2

Result

Method	Validation accuracy
Random	50.48
Average score	80.08
PageRank & average score*	84.55
Heterogeneous graph with GraphSAGE	86.79

* - considering the number of players in each game

Validation accuracy according to number of layers

Method	Validation accuracy
Layer 3	86.46
Layer 5	86.43
Layer 7	86.79
Layer 9	86.75

THANK YOU.