Early Detection of Heart Disease with Graph Neural Network

1st Gunawan
Faculty Informatics
Telkom University
Bandung, Indonesia
naufalalgunawan@student.telkomunive
rsity.ac.id

*2nd Wiharja
Faculty Informatics
Telkom University
Bandung, Indonesia
bagindokemas@telkomuniversity.ac.id

3rd Hasmawati
Faculty Informatics
Telkom University
Bandung, Indonesia
hasmawati@telkomuniversity.ac.id

Heart disease is one of the most serious public health problems due to its high morbidity and mortality that challenges the ability to identify early symptoms in a timely manner. In the medical field, early detection of heart disease has received a lot of attention. In this study, the GNN model was used in a collection of heart disease datasets from UCI Machine Learning consisting of 14 main attributes used to perform the analysis. The performance of GNN is evaluated with confusion matrix and the result of GNN can reach 78.33%.

Keywords—GNN, GCN, GAT, Knowledge Graph, Early Detection of Heart Disease

*: correspondence author