ABSTRACT

Cryptocurrency is a digital asset created using blockchain technology. One of the use cases of cryptocurrency is to use it as an investment. However, choosing a cryptocurrency as an investment instrument is hard because investors need to consider many factors of a cryptocurrency project, and the number of cryptocurrencies currently available has reached 20,000. This problem can be solved by creating a recommendation system. The recommendation system is using the Knowledge Graph Convolutional Network. KGCN is an algorithm that effectively reveal the relationship between items by mining the attributes of the items in the knowledge graph. The knowledge graph used is the cryptocurrency knowledge graph. The output from the system is in the form of top 3 cryptocurrency recommendations for specific users and AUC evaluation scores. The research results show that the KGCN algorithm can provide appropriate recommendation results and has a up 19% better AUC score compared to another algorithm namely RippleNet.

Keywords: Cryptocurrency, Recommendation System, Knowledge Graph, Knowledge Graph Convolutional Network.