

Abstract

Adam Frey

Aim of this work was to develop a machine-learning model for a prediction of drug-target interactions. Inspired by previous state-of-the-art approaches, the work focuses on collaborative filtering methods and deep learning neural network models. The goal of improving upon the previous work was achieved using a series of improvements of a basic latent matrix factorization algorithm on the relevant dataset. The small amount of data currently seems like the bottleneck for utilizing more sophisticated deep learning methods. As such hybrid approaches for recommendation systems can prove to be interesting next step due to their effective utilization of multiple data sources.