Social Network Analysis Project:

Group:

Connor Mignone, Ty Painter, Logan King

We want to do our project on the H&M Personalized Fashion Recommendation competition. We were interested in doing the competition before the chance of doing it in this class, but with the workload between an actual job and four classes, we decided not to attempt the challenge. The H&M Personalized Fashion Recommendation competition concept is about helping customers quickly find what interests them. The competition aims to enhance the shopping experience and improve the recommendation engine. This will, in turn, improve economic efficiency at multiple steps if, for example, customers are more satisfied with their purchases, reducing returns and shipping costs. Of course, this is only possible if, beginning at the customer's level, a satisfactory product purchase is made.

The data is based on previous transactions and customer and product meta data. Therefore, the meta data would be perfect for node features. For example, the meta data may contain garment type or customer age. The meta data also may include text data from product descriptions and images.

The evaluation is based on mean average precision. More specifically, the mean average precision of a maximum of 12 predictions per customer. The predictions will be purchases based on customer_id, regardless of if the customer made purchases in the training data.

The timeline must be efficient to complete the competition on time and within the timeframe of the class. There are approximately four weeks to complete a project competitors have had months to do. The first week will be planning and data exploration. The following week, the week of April 3rd will be feature engineering and data wrangling. If feature engineering takes longer than expected, we will cut off feature engineering by April 15th and proceed with modeling. The remaining three weeks will be

allocated to programming, modeling, and scaling the data, which is anticipated to be the most challenging part of the project.