**What ethically significant harms might Fred and Tamara have suffered as a result of their loan denial?**

I believe the immediate harm that Fred and Tamara suffer from is the amount of data collected from this loan process. They had the green light from investors solely based off their concept and background, but other factors, unknown to them, rated them a moderate-to-high risk. The amount of invasion from this process puts their security at risk and allows banks to collect, and potentially sell, their personal data. Not only is this an invasion of privacy, but there is no transparency with this process at all since none of the factors that went into the algorithm’s decision, which aren’t 100% accurate, get shared.

**What sort of ethically significant benefits could come from banks using a big-data driven system to evaluate loan applications?**

With the amount of potential data collection from each loan process, banks could use it to formulate a “perfect” profile on their ideal applicant. Based on different qualities (occupation, race, credit score, etc.) of an applicant, they could predict who’ll more likely be able to pay off their loan and not waste money lending to lower ranked applicants. With enough data, banks can personalize the algorithm to only approve applicants that fit their ideal trait list.

**Beyond the impacts on Fred and Tamara’s lives, what broader harms to society could result from the widespread use of this particular loan evaluation process?**

This process would open a huge can of worms in terms of potential issues such as: systematic racism, sexism, etc. If there’s a pattern of the algorithm rating certain groups with a specific: race, sex, or medical history higher risk candidates, that would be detrimental to society. Have a history a diabetes? Want to open an all-woman gym? Happen to have the racial background of a higher risk applicant? All of these very possible scenarios could negatively impact an applicant that undergoes this loan process.

**Could these individual or societal harms have been anticipated by the software system’s designers? Should they have been anticipated, and why or why not?**

I believe that these individual/societal harms could have easily been anticipated by the software designers. Since an algorithm has no concept or knowledge of harmful societal biases, it should not factor in certain items discussed earlier. Especially since these factors really shouldn’t have an impact of obtaining a loan in the first place. With the amount of personal data that this algorithm is designed to collect, the designers should have definitely anticipated these issues.