UMN Data BootCamp
Capstone Proposal
Group # 1

Intro the topic

Employee attrition in companies is disruptive. Not only can it tarnish a company's reputation, but it can disrupt product delivery and service quality, among other things. If data could be analyzed on employee characteristics such as job satisfaction, compensation, and commute distance, perhaps employers could gain insight into the conditions that contribute to employee attrition and, if able, seek to keep those employees by changing those conditions. Not only would this benefit employees themselves, but company operations would experience less disruption and customers would likely be more satisfied.

Inspiration

Adults spend a majority of their life at work. Circumstances that attribute to workplace dissatisfaction or satisfaction are therefore of extreme importance when assessing whether to stay at a company or perhaps look elsewhere.
https://github.com/mmd52/HR_Employee_Attrition

Colors

https://coolors.co/palette/355070-6d597a-b56576-e56b6f-eaac8b

Prediction

Based on workplace/employee characteristics the machine learning model would predict the likelihood of employee attrition.

Basic design concepts for dashboard

The landing page would show a profile mockup of a person who was going to leave their job and one who was not. Below this would be various visualizations showing the demographic breakdown of our data along with visuals to highlight those features that are more likely to predict attrition. We imagine a page would be included for people to input an imaginary (or their own) profile to find the likelihood that that person would leave, or continue working in their current position.

- BI Visualizations (Tableau)
- ML Live prediction page
- Works Cited page
- About Us page
- Write up/EDA and ML report

Roles and responsibilities

Oliver - Tableau, Machine Learning, Database development
Phil - Float as-needed
John - Machine Learning, Write-ups, Float (as needed)
Conor - GitHub, Data Engineering, Flask/Web, Float (as needed)