

## **Capstone 3 Project Proposal:**

### **Idea:**

An unavoidable consequence of having customers who trust you with their money is that there will eventually be unhappy customers who have complaints about a wide range of issues. In my project, I am going to take a dataset of complaints from the Consumer Financial Protection Bureau (CFPB) and use Natural Language Processing to predict the category and severity. With this information, I can make a recommendation on actions that should be taken based on the nature of the complaint.

### **Modeling:**

My first step will be to transform the data into a structure where it can be understood. From there I will integrate Natural Language Processing techniques to extract meaning out of the complaints and assign a severity ranking by analyzing the polarity of the complaint.

### **Value Proposition:**

With my experience in a financial role supporting a call center, I was privy to conversations with the senior leaders who would read hundreds of complaints, choose a portion of them to focus on, and work with their team to formulate a plan to avoid incidents like it in the future. An effective model would allow the company to avoid paying their senior leaders to read hundreds of complaints and be able to glean valuable analysis and recommendations from the model that is drawing upon thousands of complaints like it. As a result of these efficiencies, executives can draw upon the model's output and make valuable decisions that will increase customer satisfaction.