

## Golden Circle

### Why?

BudSense is a local startup in Regina that we have decided to work with for our project. They have asked us to build a machine learning API to be able to classify cannabis products, specifically flower products as they are the fastest changing in the industry. Data in the cannabis industry is extremely fragmented and hard to come by; this combined with the fastest growing and changing industry in Canada leads to problems for startups like BudSense who need access to information quickly and accurately. So we want to create a tool that can be distributed to Budtenders and warehouse workers to get rewarded for crowdsourcing data. This is especially important for the market in the United States, as it is not as regulated as the Canadian market. With this tool, we hope to make data more accessible in the cannabis industry.

### How?

We are going to build a machine learning API that can be used in a web app to achieve our goal. For the API we will be using Python and the Tensorflow library. For the web app we will be working with BudSense using the Angular framework.

### What?

We are going to use thousands of images of cannabis packaging for our project. For this we will use a Convolutional Neural Network (CNN) to analyse and classify images. This will be used to train a model that will classify images. We will also take in the data that is uploaded to the system to continuously train the model.

### Impact

Our vision for our project is a system that improves the flow of data in the cannabis industry in both Canada and the United States. We hope that our product can improve the cannabis industry to make it better for both businesses and consumers.