

Project Title: Mail Alert System for Daily Mail Delivery

Team Members: Sarah Brown

Overview

- Project Goals
 - Use archived security camera footage of the street outside of my house to train a model to be able to detect when the mail has been delivered on any given day. Stretch goals depending on success training original model will focus on providing an alert if the mail truck does not stop to deliver mail. Another stretch goal is to use a different camera view to notify when the mail truck is almost to the house, allowing residents time to place letters or bills in the mailbox without interacting with the mail delivery person to promote social distancing.
- Project Scope
 - For this project to be successful I will need to process archived security camera footage into an usable dataset, define a metric for that dataset, split the dataset into separate parts for training, validation, and testing, and use this dataset to develop and train a neural net model. To begin with I will focus on implementing an existing neural net model and will continue on to try different model variants. Depending on speed and success of training the first model, I would like to continue and repeat the steps with a different dataset coming from a different camera angle to predict when the mail truck is a couple of houses away.

Plan

- Progress Report Objectives
 - By the time of the progress report, I will have processed my images and developed a dataset I can use to begin training a model. In addition, I will also focus on working through different examples focused on topics related to building and training models like this one. Finally, begin neural network training process.
- Plan to Achieve Objectives
 - Process images
 - Convert images to dataset
 - Find and work through examples
 - Begin neural network development and training