***Barrett Nearn Capstone Proposal***

**Executive Summary**

The goal of this capstone is to conduct a comparative analysis between the rise and fall of COVID-19 cases and the crime statistics before and during COVID-19 in Nashville, Davidson County. As explained in the following ‘motivation’ section, I was a MNPD Officer before joining NSS. As such, I remain interested in crime statistics for the greater Nashville area. The challenges I foresee with this project are being able to obtain accurate and up-to-date statistics for both COVID crime data. In addition, I am expecting hurdles in being able to make the two datasets merge well together as I am not sure what timeframes each dataset will be reported (i.e., days, months, weeks, etc.).

**Motivation**

My motivation for this project is my background in police work before transferring to a role in data analytics. Given I was employed by the MNPD during the time period described below, I have some preconceived ideas about what the crime statistics are; however, I would like to see if my assumptions were correct.

**Data Question**

My question is: “How has the Covid-19 shutdown and increase of overall Covid-19 cases in Davidson County affected the crime statistics, if at all?”

**Minimum Viable Product (MVP)**

As a minimum viable product, I would like to present a dashboard (or dashboards) that include the pre-Covid crime statistics, statistics around the time period of the Nashville shutdown, and the statistics in the months thereafter. Given that this may be a large amount of information to present, I considered creating a dashboard of pre- statistics, a separate dashboard of current statistics, and a dashboard showing side-by-side comparison of the two or use the third dashboard to display the types of crimes that had the greatest change overall that were unexpected.

**Schedule (through 1/7/2022)**

1. Get the Data (11/20/2021)
2. Clean & Explore the Data (~12/3/2021)
3. Create Presentation of your Analysis (~12/15/2021)

* Should be a presentation, but could include a Jupyter Notebook or dashboard in Excel, Tableau, or PowerBI

1. Internal demos (12/17/2021)
2. Demo Day!! (1/7/2022)

**Data Sources**

As of now, I would source my data from data.nashville.gov and the public covid-19 dataset distributed by the Davidson County health department.

**Known Issues and Challenges**

For now, the largest known issue/challenge will be able to decipher each dataset correctly. Given my previous employment, I know that crime statistics are not always reported in a manner which are the most intuitive. I foresee being able to decipher the true frequency of certain crimes may be somewhat difficult.