VIRGINIA DEPARTMENT OF TRANSPORTATION MEMO

For Immediate Release: May 10, 2024

Executive Summary:

This memorandum commissions you as data science consultant for our Virginia license plate recognition (LPR) pilot program (VDOT Project #A1138749).

Brief:

Congratulations! VDOT has been very impressed with your previous work as a data science analyst, and would like to recruit you as a data science consultant for our Virginia LPR pilot program (VDOT Project #A1138749). VDOT has been monitoring traffic patterns in the DMV region, and foresees needing improved technology to identify from which state a car originates. Specifically, if a car is from Virginia versus out-of-state. This is important in tracking down cars that pass through toll roads, identifying cars of interest for law enforcement, or to determine feasibility of government policy which taxes out-of-state vehicles entering Virginia.

The Virginia LPR pilot program is an effort to design an image-processing program that can take the image of a license plate and determine from which state the plate (and attached car) are from. We require a data science consultant on our team to help realize the feasibility of this project, and your goal is to create a model that can identify the state from a plate image with 80% accuracy.

Deliverables:

1. Produce an image-recognition program that reads an image of a license plate and outputs which state the plate is from. The program should be able to handle batches of 300+ images, and be able to identify Virginia, Maryland, Pennsylvania, and Washington D.C plates. Create a GitHub repository with the code and results of this, along with any other additions.

2. Create a presentation summarizing your project's motivation, relevant findings, and their implications for your team and the LPR pilot program.