

## Emergency Vehicle Classification - Can Emergency Vehicles Be Accurately Classified Using Image Learning?



### Scenario:

Imagine you are walking through downtown NYC. Suddenly, an ambulance appears in traffic, sirens blaring, rushing to a critical emergency. Every second counts. But how does the system know to clear the way? How can technology help ensure that emergency vehicles reach their destinations safely and quickly?

The New York State Department Of Transportation has contacted you to design a system that can assist with this problem. You are tasked with designing a Machine Learning algorithm that can accurately classify emergency and non-emergency vehicles to be used for intelligent transportation systems by the NYSDOT.

### Task:

Your job is to use RESNET to accurately classify emergency vehicles from non emergency vehicles with an accuracy of 95% or above. In addition, you have to create exploratory plots visualizing the differences between emergency vehicles and non-emergency vehicles to assist with future predictive models and analysis. You will create a report detailing the work you did in data analysis, building the RESNET model, and examining model testing and accuracy.

**GitHub Link:** <https://github.com/TheV123/DS-4002-CS>