

## INFORMATICS INSTITUTE OF TECHNOLOGY In collaboration with UNIVERSITY OF WESTMINSTER

## Vehicle make and model identification system

A dissertation by

Mr. G.V.Akash W1715747 / 2017269

Supervised by

Ms. Sulari Fernando

Submitted in partial fulfilment of the requirements for the BEng (Hons) in Software Engineering degree at the University of Westminster.

July 2022

## Abstract

After the industrial revolution, mankind have been making/innovating various ways to the transportation because of that the vehicles became more popular ways to transport. Because of that major companies always try to build a new vehicle model and present it to the market. Because of this competition among the companies in the last decade they have been making lots of vehicles. Because of that there are hundreds of thousand different models out there in the world it is a very hard thing to tell the vehicle make and the model that we see by the looks of it.so in this research the author is providing a solution for the problem using deep learning as the technology. by using a dataset with limited data into a improved CNN model as the solution of this problem author was able to get good accuracy levels using two trained CNN models as for the vehicle make and model separately.

**Keywords**: CNN, Image processing, Deep learning, RNN, Multi model, Image classification, Convolutional layers, Data Augmentation