Image Document

Nakul R. Padalkar

This is the abstract of your document, where you summarize the contents.

Introduction

This document contains sample images from each folder from the vision dataset. The vision dataset is a collection of images from a specific camera source. There are 11 manufacturers and 35 devices. Apple, Samsung, and Huawei are the top three manufacturers. The table below shows the number of devices per manufacturer [Bennabhaktula et al., 2022].

Manufacturer	Count	Devices
Apple	13	iPhone4s, iPhone5c, iPhone6, iPhone4, iPhone4s, iPad2, iPhone5c, iPhone6, iPhone5c, iPhone6Plus, iPadMini, iPhone5, iPhone5
Asus	1	Zenfone2Laser
Huawei	5	P9, P9Lite, P8, Honor5c, Ascend
LG	1	D290
Lenovo	1	P70A
Microsoft	1	Lumia640LTE
OnePlus	2	A3000, A3003
Samsung	8	GalaxyS3Mini, GalaxyTab3, GalaxyS3, GalaxyTrendPlus, GalaxyS3Mini, GalaxyS5, GalaxyS4Mini, GalaxyTabA
Sony	1	XperiaZ1Compact
Wiko	1	Ridge4G
Xiaomi	1	RedmiNote3

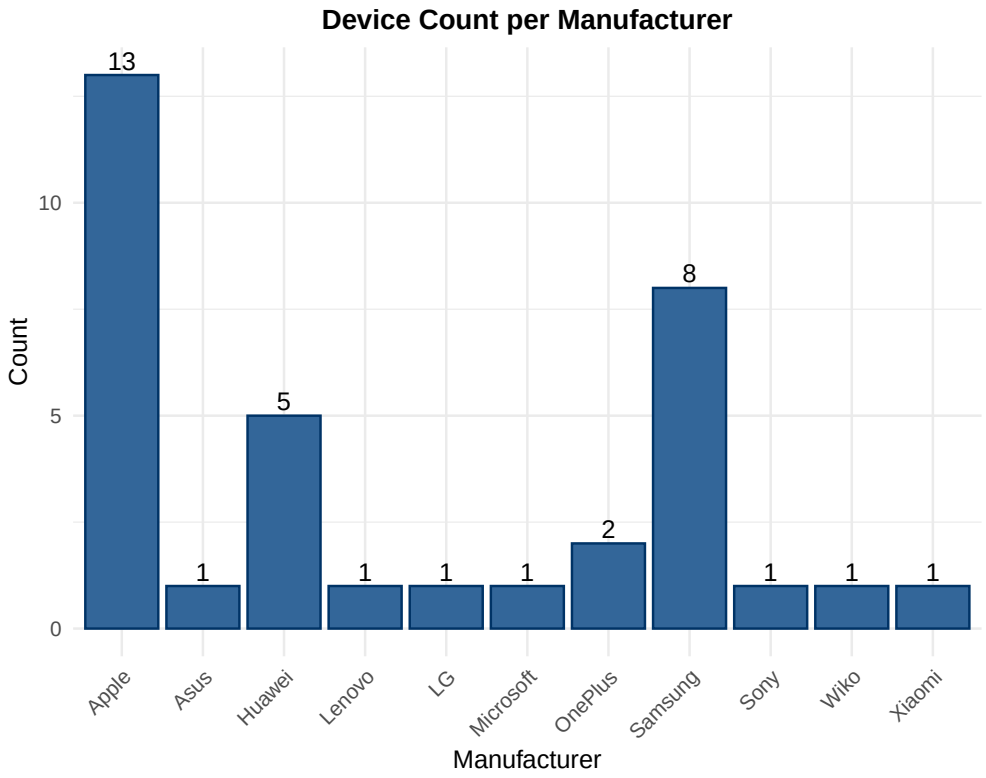

Figure 1. Device Count per Manufacturer

Image Counts Per class

The images are mainly divided into two types: 1) Flat surface Images, referred to as *Flat* and 2) Generic Images, referred to as *Nat*. Flat images are mostly landscape images of flat surfaces like skies, walls, and roads. Generic images are images of objects, people, and animals. Here is a general structure of the dataset.

1. Flat Images (Flat)
2. General Images (Nat)
    1. General Images Shared through WhatsApp (NatWA)
    2. General Images Shared through Facebook (NatFB)
        1. High Quality Images (NatFBH)
        2. Low Quality Images (NatFBL)

True Image Counts

The following figure shows the number of images in each class and subclass. Based on this distribution, we can generate an approximate distribution of the images needed for the AI-generated images.

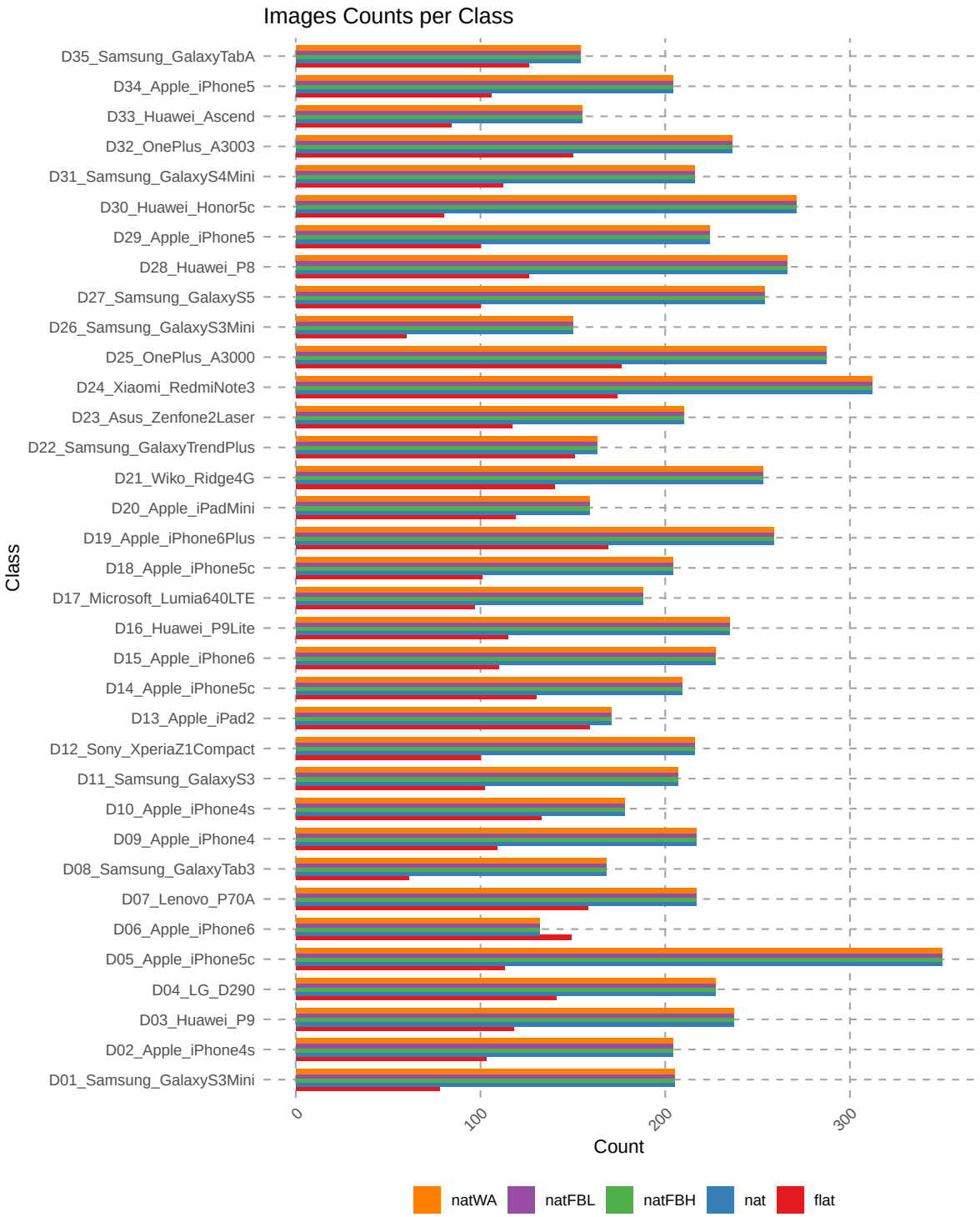

Figure 2. Image Count per Class

Figure 3. Image Count per Class

AI Image Counts

Based on the counts above, the following table shows the number of images needed for each class and subclass. The AI-generated images will be used to augment the dataset. If possible, we will need the granularity of the images per class. The current estimate is to have 10% of the images per class to be AI-generated. Image samples are available in `output\data_characteristics` folder on Github.

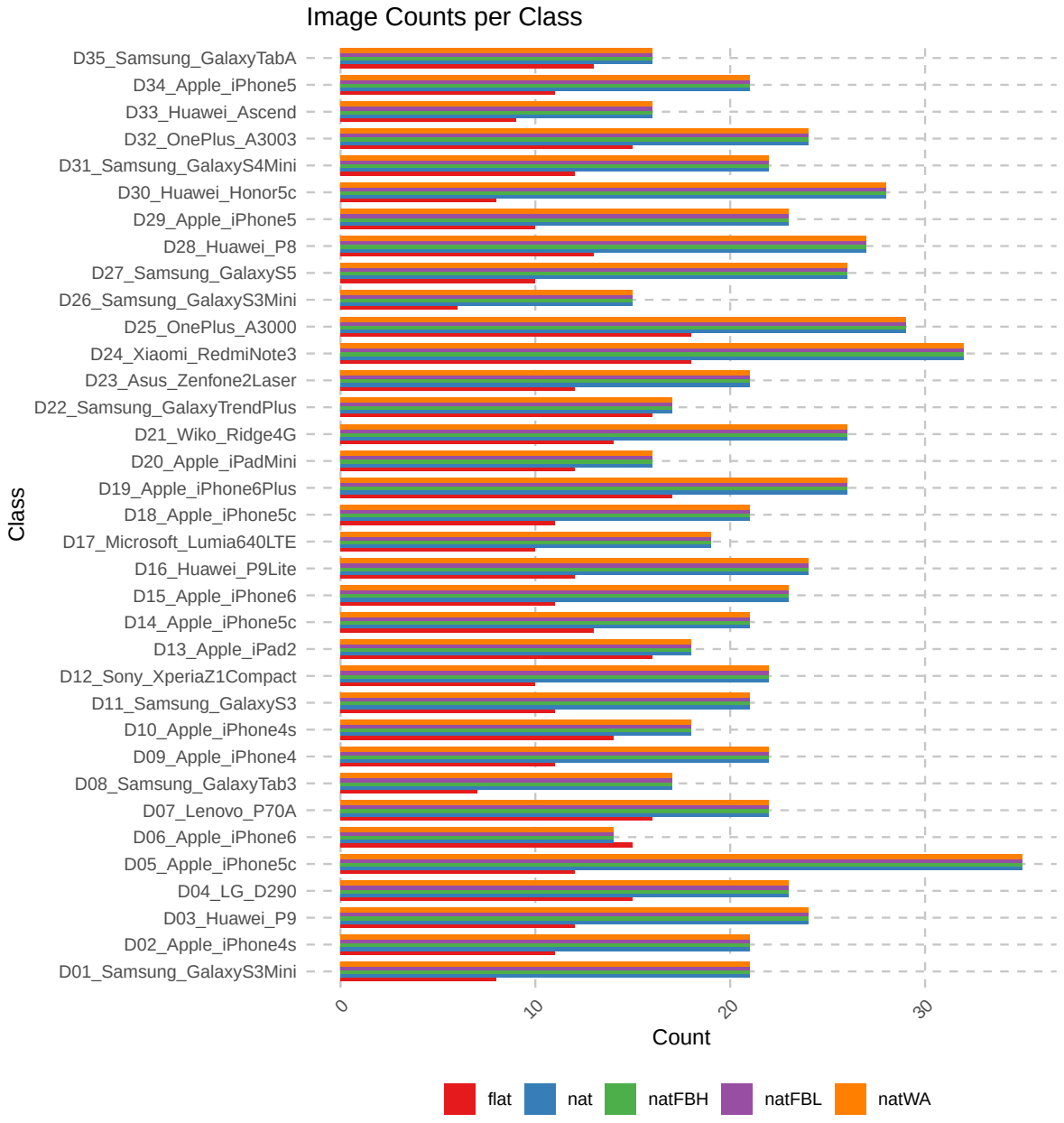

Figure 4. Image Count per Class

Table 1. AI Images per Class

Classes	flat	nat	natFBH	natFBL	natWA	Total
D01_Samsung_GalaxyS3Mini	8	21	21	21	21	29
D02_Apple_iPhone4s	11	21	21	21	21	32
D03_Huawei_P9	12	24	24	24	24	36
D04_LG_D290	15	23	23	23	23	38
D05_Apple_iPhone5c	12	35	35	35	35	47
D06_Apple_iPhone6	15	14	14	14	14	29
D07_Lenovo_P70A	16	22	22	22	22	38
D08_Samsung_GalaxyTab3	7	17	17	17	17	24
D09_Apple_iPhone4	11	22	22	22	22	33
D10_Apple_iPhone4s	14	18	18	18	18	32
D11_Samsung_GalaxyS3	11	21	21	21	21	32
D12_Sony_XperiaZ1Compact	10	22	22	22	22	32
D13_Apple_iPad2	16	18	18	18	18	34
D14_Apple_iPhone5c	13	21	21	21	21	34
D15_Apple_iPhone6	11	23	23	23	23	34
D16_Huawei_P9Lite	12	24	24	24	24	36
D17_Microsoft_Lumia640LTE	10	19	19	19	19	29
D18_Apple_iPhone5c	11	21	21	21	21	32
D19_Apple_iPhone6Plus	17	26	26	26	26	43
D20_Apple_iPadMini	12	16	16	16	16	28
D21_Wiko_Ridge4G	14	26	26	26	26	40
D22_Samsung_GalaxyTrendPlus	16	17	17	17	17	33
D23_Asus_Zenfone2Laser	12	21	21	21	21	33
D24_Xiaomi_RedmiNote3	18	32	32	32	32	50
D25_OnePlus_A3000	18	29	29	29	29	47
D26_Samsung_GalaxyS3Mini	6	15	15	15	15	21
D27_Samsung_GalaxyS5	10	26	26	26	26	36
D28_Huawei_P8	13	27	27	27	27	40
D29_Apple_iPhone5	10	23	23	23	23	33
D30_Huawei_Honor5c	8	28	28	28	28	36
D31_Samsung_GalaxyS4Mini	12	22	22	22	22	34
D32_OnePlus_A3003	15	24	24	24	24	39
D33_Huawei_Ascend	9	16	16	16	16	25
D34_Apple_iPhone5	11	21	21	21	21	32
D35_Samsung_GalaxyTabA	13	16	16	16	16	29
Total	**429**	**771**	**771**	**771**	**771**	**1200**

Table 2. AI Images per Class for Apple

Classes	flat	nat	Total
D02_Apple_iPhone4s	11	21	32
D05_Apple_iPhone5c	12	35	47
D06_Apple_iPhone6	15	14	29
D09_Apple_iPhone4	11	22	33
D10_Apple_iPhone4s	14	18	32
D13_Apple_iPad2	16	18	34
D14_Apple_iPhone5c	13	21	34
D15_Apple_iPhone6	11	23	34
D18_Apple_iPhone5c	11	21	32
D19_Apple_iPhone6Plus	17	26	43
D20_Apple_iPadMini	12	16	28
D29_Apple_iPhone5	10	23	33
D34_Apple_iPhone5	11	21	32
Total	**164**	**279**	**443**

Table 3. AI Images per Class for Huawei

Classes	flat	nat	Total
D03_Huawei_P9	12	24	36
D16_Huawei_P9Lite	12	24	36
D28_Huawei_P8	13	27	40
D30_Huawei_Honor5c	8	28	36
D33_Huawei_Ascend	9	16	25
Total	**54**	**119**	**173**

Table 4. AI Images per Class for Samsung

Classes	flat	nat	Total
D01_Samsung_GalaxyS3Mini	8	21	29
D08_Samsung_GalaxyTab3	7	17	24
D11_Samsung_GalaxyS3	11	21	32
D22_Samsung_GalaxyTrendPlus	16	17	33
D26_Samsung_GalaxyS3Mini	6	15	21
D27_Samsung_GalaxyS5	10	26	36
D31_Samsung_GalaxyS4Mini	12	22	34
D35_Samsung_GalaxyTabA	13	16	29
Total	**83**	**155**	**238**

References

Guru Swaroop Bennabhaktula, Derrick Timmerman, Enrique Alegre, and George Azzopardi. Source camera device identification from videos. *SN Computer Science*, 3(4):316, 2022.