Reporte de instancias

La colección de imágenes presentada ha sido construida a partir de videos recolectados de Youtube y algunos que han sido proporcionados por el GRUPO QAIRA de la minera Antamina, esta compuesta por vistas frontales, aéreas y de cámara fija.

Cuenta con 1572 imágenes anotadas dividas en 8 clases:

Clase	Imagen
Camion_minero	
Bulldozer	
Excavadora	
Camión	
Auto	
Persona	
Otro	

Cada imagen ha sido anotada en la herramienta LabelIMG(Singh et al., 2019)., en donde cada objeto ha sido limitado en cuadro delimitador, el cual esta denotado por xmin, ymin, xmax y ymax. Para la generación de los xml se siguió el formato PASCAL VOC(Everingham et al., 2010):

```
imagen_0001.xml
  Abrir
                                                                                    Guardar
                                     ~/Documentos/5.computer vision UNI/proyecto/Anotaciones
 1 <annotation>
          <folder>Imagenes</folder>
2
          <filename>imagen_0001.png</filename>
3
 4
          <path>/home/ninja/Documentos/5.computer vision UNI/proyecto/Imagenes/imagen_0001.png</path>
 5
          <source>
 6
                  <database>Unknown</database>
 7
          </source>
8
          <size>
9
                  <width>1280</width>
10
                  <height>720</height>
                  <depth>3</depth>
11
12
          </size>
13
          <segmented>0</segmented>
14
          <object>
15
                  <name>Excavadora</name>
                  <pose>Unspecified</pose>
16
17
                  <truncated>0</truncated>
18
                  <difficult>0</difficult>
                  <br/>bndbox>
19
20
                           <xmin>591
21
                           <ymin>323
                           <xmax>1170</xmax>
22
23
                           <ymax>567
                  </bndbox>
24
          </object>
25
26
          <object>
                  <name>Auto</name>
27
                  <pose>Unspecified</pose>
28
29
                  <truncated>0</truncated>
                  <difficult>0</difficult>
30
31
                  <br/>bndbox>
32
                           <xmin>25
33
                           <ymin>476
34
                           <xmax>320</xmax>
35
                           <ymax>666</ymax>
                  </bndbox>
36
37
          </object>
38 </annotation>
```

<u>Bibliografía</u>

- Everingham, M., Van Gool, L., Williams, C. K. I., Winn, J., & Zisserman, A. (2010). The pascal visual object classes (VOC) challenge. *International Journal of Computer Vision*, 88(2), 303–338. https://doi.org/10.1007/s11263-009-0275-4
- Tzutalin. (2015). Labellmg. https://github.com/tzutalin/labellmg
- A Hole Lotta Digging Going On YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=gvbrsJvft7s&ab_channel=JimHowDigs Dirt
- Aerial View Of Coal Mine Santa Lucia. Dec 2018 YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=uvlrV-D6gIU&ab_channel=GrupoPeal
- AUSTRALIA'S HEART OF GOLD | A Cinematic Epic Drone Film |-YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=Wko-yJXvnZY
- Canyon Coal Phalanndwa Aerial View YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=b1HQMYSXYR4&ab_channel=Canyon Coal
- Cat 992G Wheel Loader And Liebherr 984 Loading Cat 777C And 775E

 Dumpers Labrianidis/Sotiriadis YouTube. (n.d.). Retrieved September
 23, 2020, from
 https://www.youtube.com/watch?v=Y7VOEjig50M&ab_channel=MegaMachinesChannel
- Building coastal protection | CAT 740B EJ / 972K / 347D / Volvo A40E | Waterdunen Breskens Holland YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=eRTWTmTGkgQ&ab_channel=Tractors potter
- Cat 6015B Excavator Loading Trucks With Two Passes Sotiriadis Brothers YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=47tBYAJvpzA&ab_channel=MegaMachinesChannel
- Cat 992C Wheel Loader Loading Coal On Trucks Melidis SA YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=SaWBcoS4I0I&ab_channel=MegaMach inesChannel

- Cat 365C Excavator Loading Trucks And Operator View YouTube. (n.d.).
 Retrieved September 23, 2020, from
 https://www.youtube.com/watch?v=4Y31MD36xF4&ab_channel=MegaMachinesChannel
- Caterpillar 390D Excavator Loading Trucks Pyramis Ate YouTube. (n.d.).
 Retrieved September 23, 2020, from
 https://www.youtube.com/watch?v=zrMd7IMRQPI&ab_channel=MegaMachinesChannel
- Caterpillar 365C Excavator Loading Trucks 40 Minutes Movie YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=QTfg2_SRcY4&ab_channel=MegaMachinesChannel
- Caterpillar Payload Technology YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=t0ipgcol3H8&ab_channel=FinningNews
- DISPATCH® Fleet Management System (FMS) Overview YouTube. (n.d.).
 Retrieved September 23, 2020, from
 https://www.youtube.com/watch?v=ZEIAWxdNEhA&ab_channel=ModularMining
- Kalgoorlie Superpit World Biggest Liebherr CAT Gold Mining Equipment
 Monster Trucks in action YouTube. (n.d.). Retrieved September 23, 2020,
 from
 https://www.youtube.com/watch?v=X8Mqz4nZpTY&ab_channel=OzOutbackFamily
- Excavadora vista desde un dron YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=a5arvanRJAg&ab_channel=DavidM.R
- DANGER Open Pit YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=2rVgX4thsRc&ab_channel=JimHowDig sDirt
- Comenzamos una nueva historia en minería Mina Justa YouTube. (n.d.).
 Retrieved September 23, 2020, from
 https://www.youtube.com/watch?v=SLoPgd7liuc&ab_channel=FerreyrosPe
 rú
- Earthmoving + Caterpillar excavadora 320D2L + volquete hyundai + drone dji mavic pro YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=eSelCeAc2JI&ab_channel=NakaMaqui narias

- LAS BAMBAS MAQUINARIAS PESADAS YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=89YBwhu7rPk&ab_channel=VikoDDJ
- Opencast Mines. YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=F10CGS4L3S4&ab_channel=MINNING ActivityKiranVelani
- The Biggest Coal Mines In India YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=laAHDVtjQH4&ab_channel=maheshpra sadTiwari
- Open Pit Coal Mine YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=cWs3FzDlgUA&ab_channel=JimHow
- Open Cast Mining YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=zPx2-QcAQbc&ab channel=HenryOosthuizen
- Komatsu Autonomous Haulage System (AHS) YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=6Nw7q0t2A9o&ab_channel=KomatsuMining
- Working in a Coal Mine YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=gzt-45ePl7w&ab_channel=JimHowDigsDirt
- Volvo L180F Wheelloader Loading Scania And Volvo Trucks YouTube. (n.d.). Retrieved September 23, 2020, from https://www.youtube.com/watch?v=VnUC7GT_ct8&ab_channel=DanishConstructionChannel