

Proyecto CGR-GIZ-CENFOTEC

IA – Modelo y Estimación de implementación

Msc. Rodrigo Herrera

Objetivo

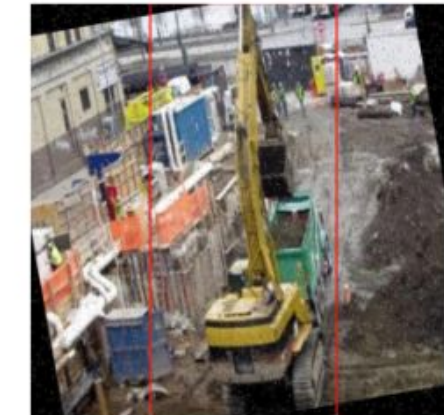
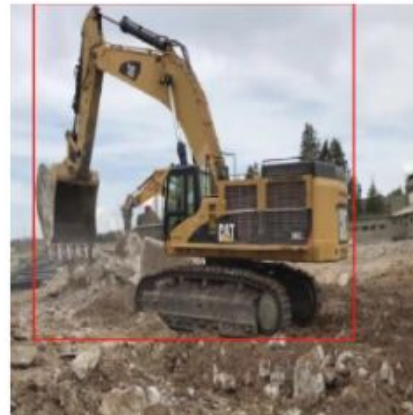
- Avances del Modelo
- Demo
- Revisión de arquitectura de implementación
- Revisión de costos de arquitectura

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Imágenes



Vagonetas



Excavadoras

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Imágenes



Cargadores



Personas

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Imágenes

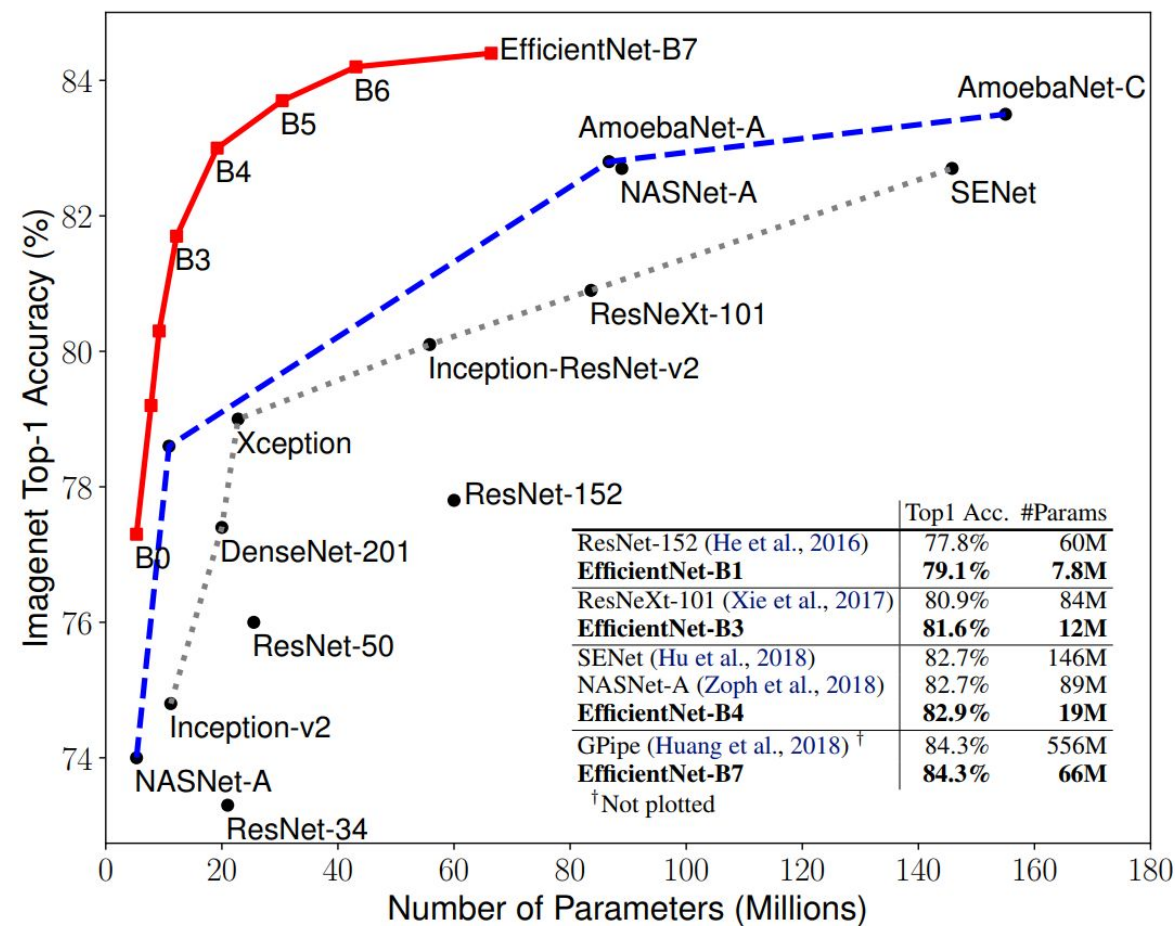


Mezcladoras

Cantidad por clase son:

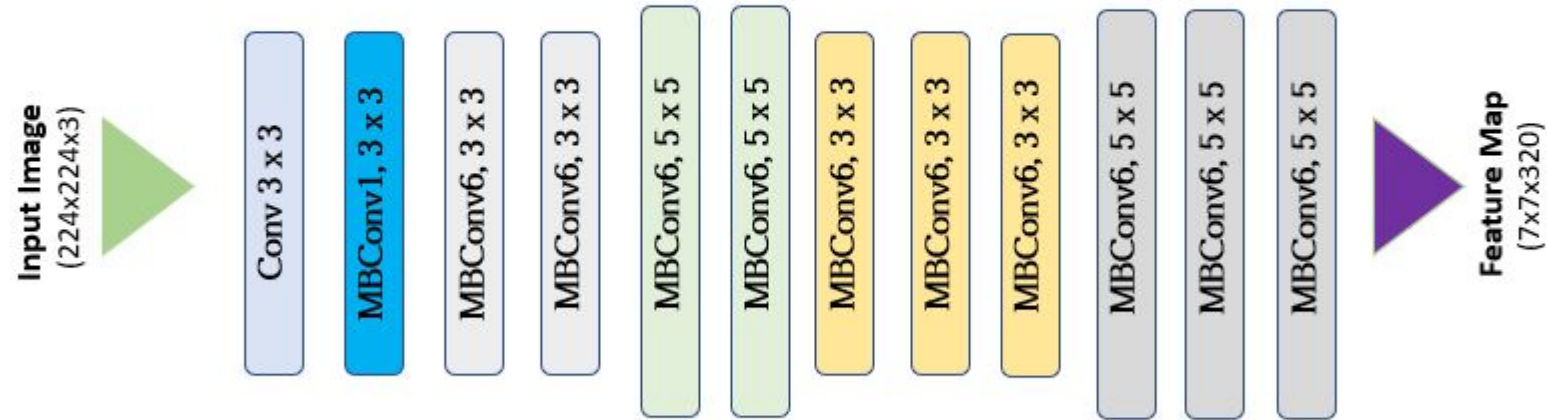
- Dump_truck: 7855
- Excavator: 7323
- Loader: 4870
- Mixer_truck: 1992
- Person: 2192










Modelos



Modelo

EfficientNet Architecture



Modelo	Id	Name	Description	Last train/accuracy	Last train/loss
•  CON-15		DenseNet	3rd Training	0.967273	0.103872
•  CON-14		ResNet50	3rd Training	0.952727	0.143113
•  CON-13		EfficientNet	3rd Training	0.965909	0.111088
•  CON-11		DenseNet	2nd Training	0.898643	0.304159
•  CON-10		ResNet50	2nd Training	0.951131	0.150619
•  CON-9		EfficientNet	2nd Training	0.960633	0.118721
•  CON-8		DenseNet	1st Training	0.901357	0.319861
•  CON-7		ResNet50	1st Training	0.898643	0.297706
•  CON-6		EfficientNet	1st Training	0.954299	0.146358

Demo

Image Classification App

Choose an image...



Drag and drop file here

Limit 200MB per file • JPG, JPEG, PNG

Browse files



mezcladora.jpg 8.6KB

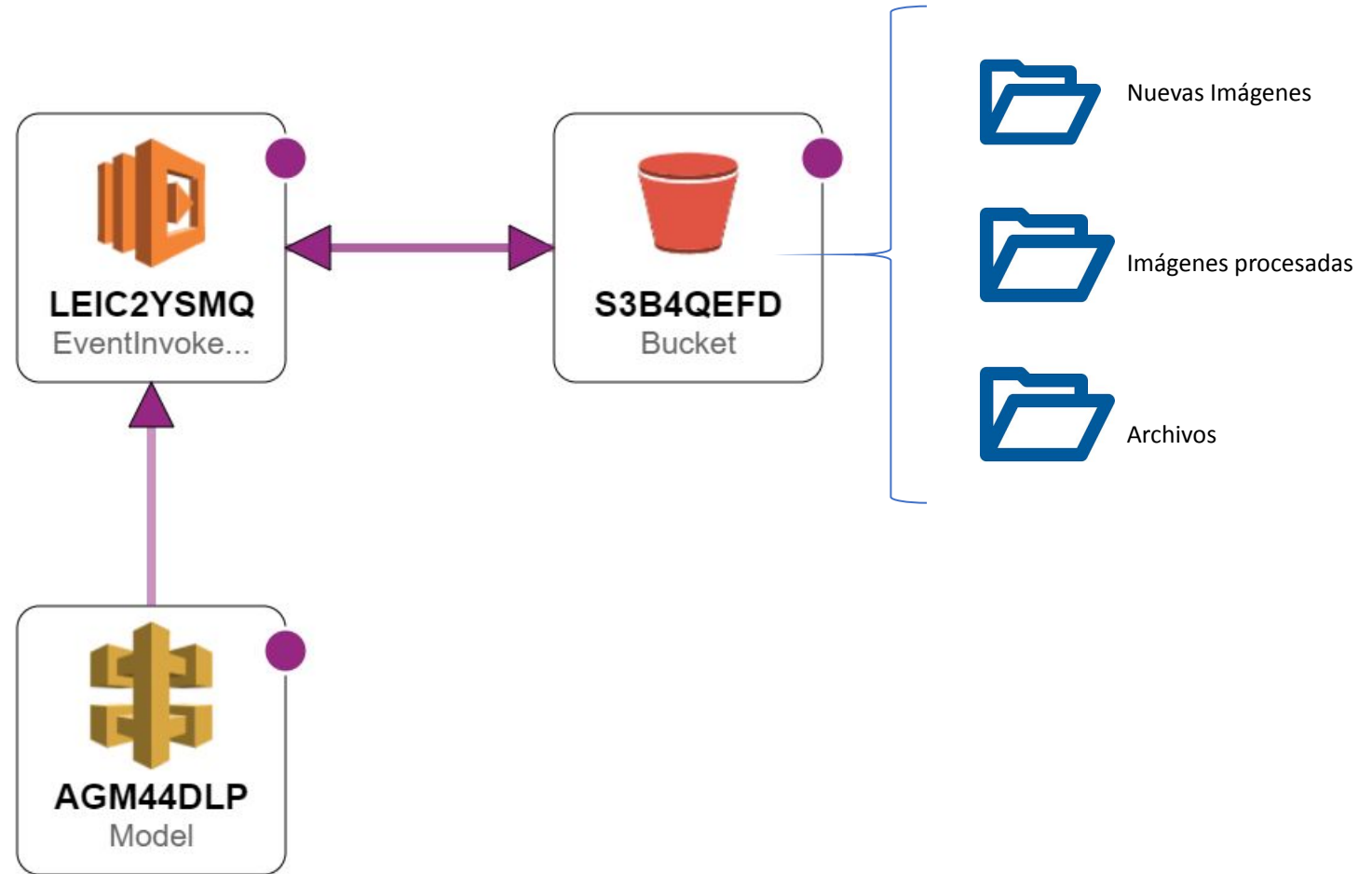


Uploaded Image.

Classifying...

Prediction: Mixer_Truck with confidence 0.82

Arquitectura de implementación



Estimación de Costos

Estimate summary

Upfront cost

0.03 USD

Monthly cost

124.99 USD

Total 12 months cost

1,499.91 USD

Includes upfront cost

Detailed Estimate

Name	Group	Region	Upfront cost	Monthly cost
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AWS Lambda	No group applied	US East (Ohio)	0.00 USD	0.01 USD
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Status: -

Description:

Config summary: Architecture (x86), Architecture (x86), Invoke Mode (Buffered), Amount of ephemeral storage allocated (2 GB), Number of requests (1000 per day)

Amazon Simple Storage Service (S3)	No group applied	US East (Ohio)	0.03 USD	3.31 USD
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Status: -

Description:

Config summary: S3 Standard storage (100 GB per month), S3 Standard Average Object Size (16 MB), PUT, COPY, POST, LIST requests to S3 Standard (1000), GET, SELECT, and all other requests from S3 Standard (1000), Data returned by S3 Select (2 GB per month), Data scanned by S3 Select (2 GB per month) DT Inbound: Internet (50 GB per month), DT Outbound: All other regions (50 GB per month)

Name	Group	Region	Upfront cost	Monthly cost
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Amazon API Gateway	No group applied	US East (Ohio)	0.00 USD	121.67 USD
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Status: -

Description:

Config summary: REST API request units (thousands), Cache memory size (GB) (None), WebSocket message units (thousands), HTTP API requests units (thousands), Average size of each request (2 MB), Average message size (32 KB), Requests (1000 per day), Requests (0 per day)

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