





Aerial Cactus Image Classification

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OVERVIEW

1

Business Problem

2

Data & Model

3

Results and
Recommendations

4

Next Steps

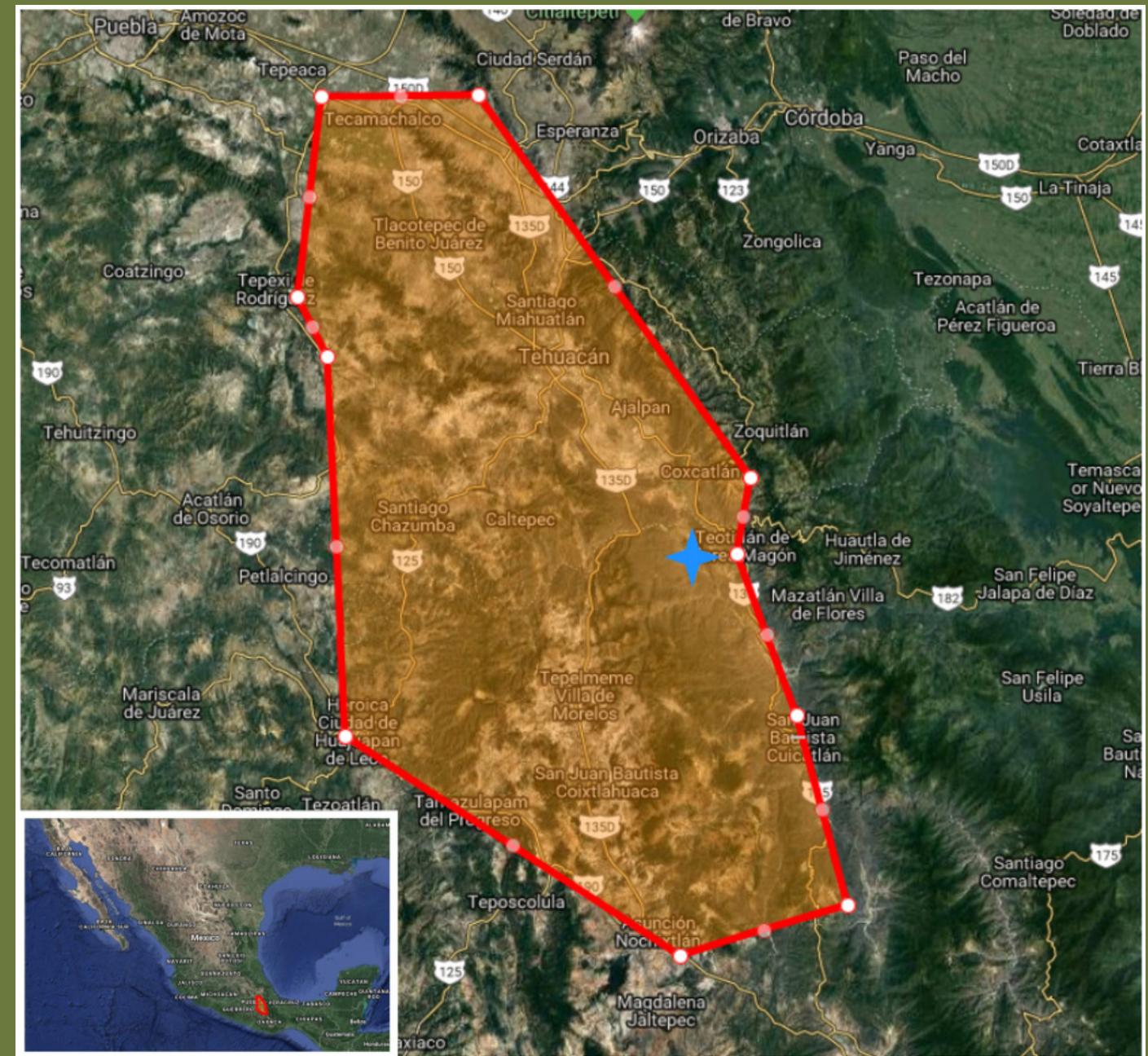


BUSINESS PROBLEM



- Government of Mexico
- VIGIA

Exploring The Data

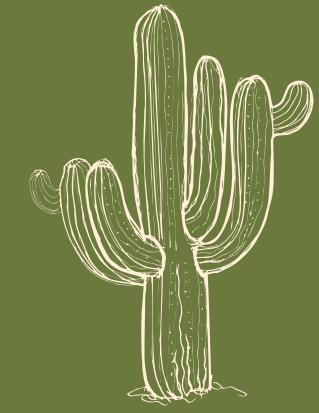


Keystone Species

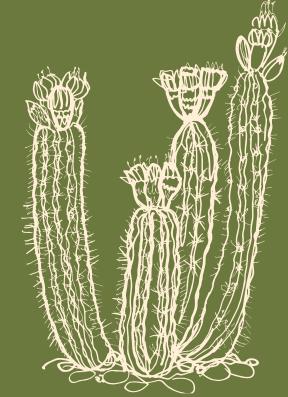


OUR DATASET

Tehuacán-Cuicatlán Valley



17,500 RBG Images



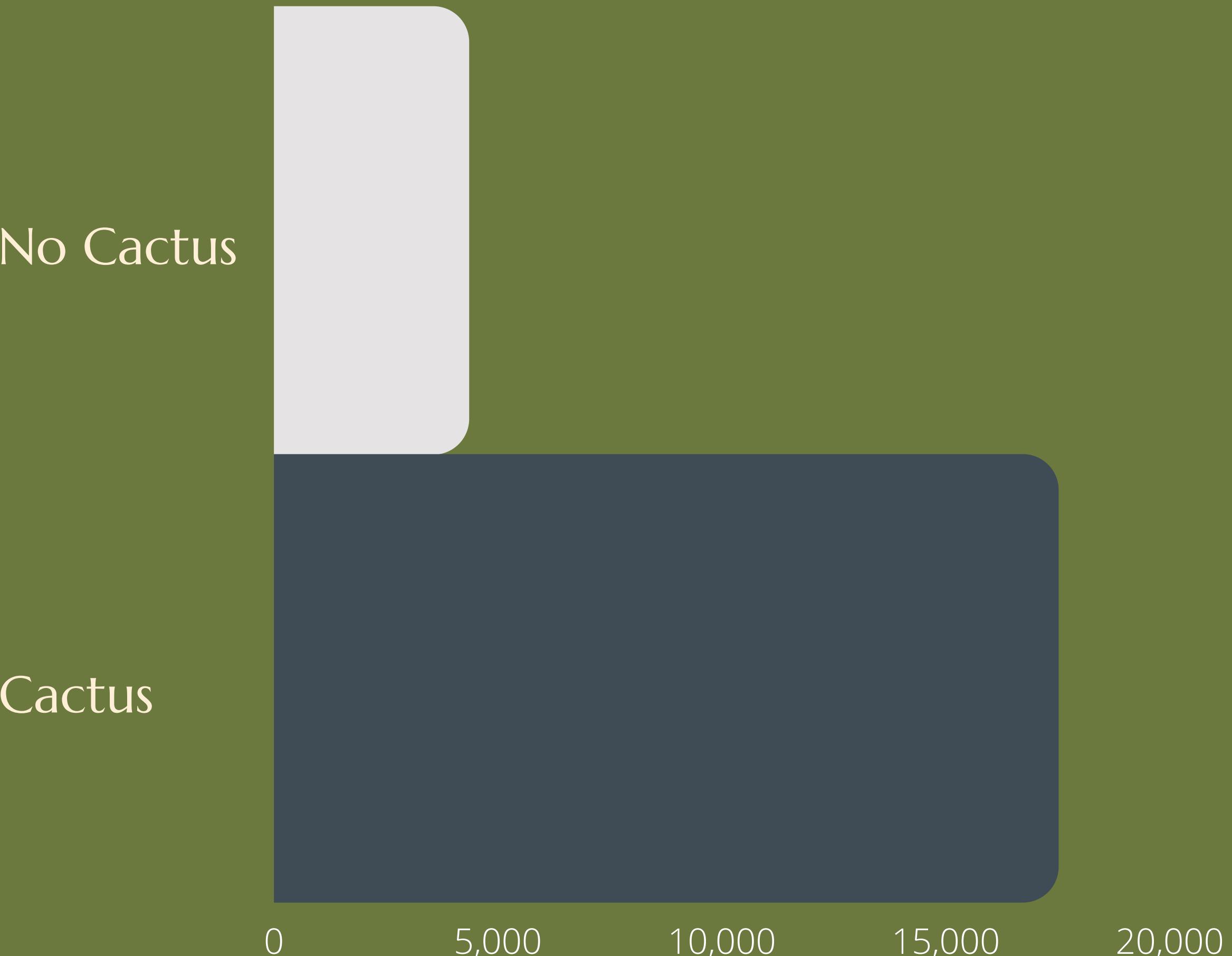
10,000 square km



Manually marked

Exploring The Data

Image Counts



Exploring The Data

Cactus



No Cactus



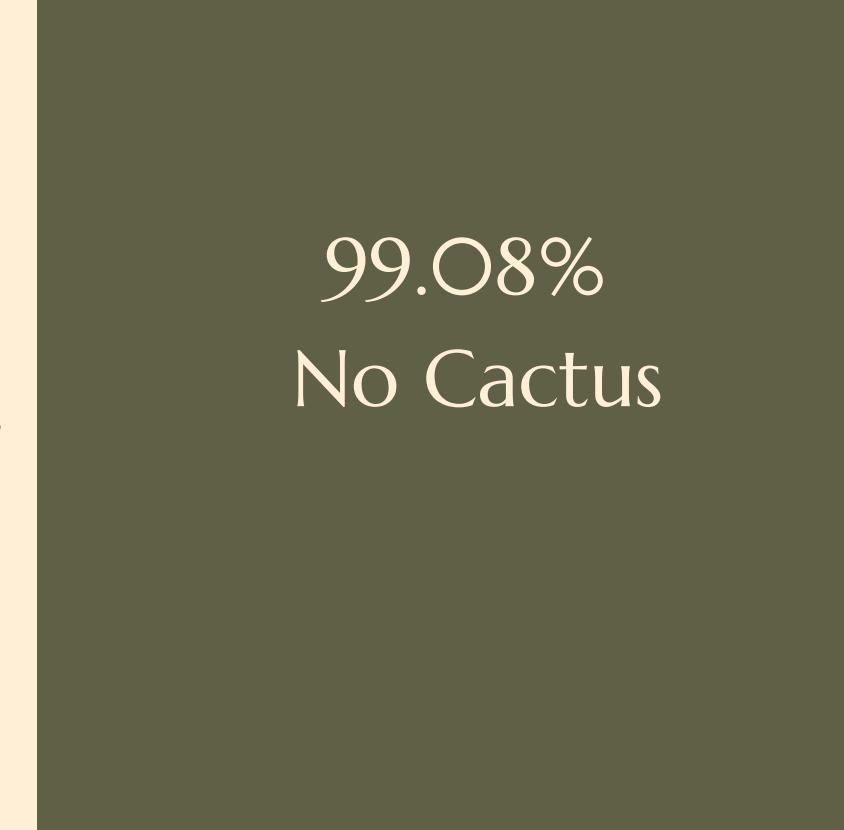
Model Results



Accuracy: %99.40
Precision: %99.70

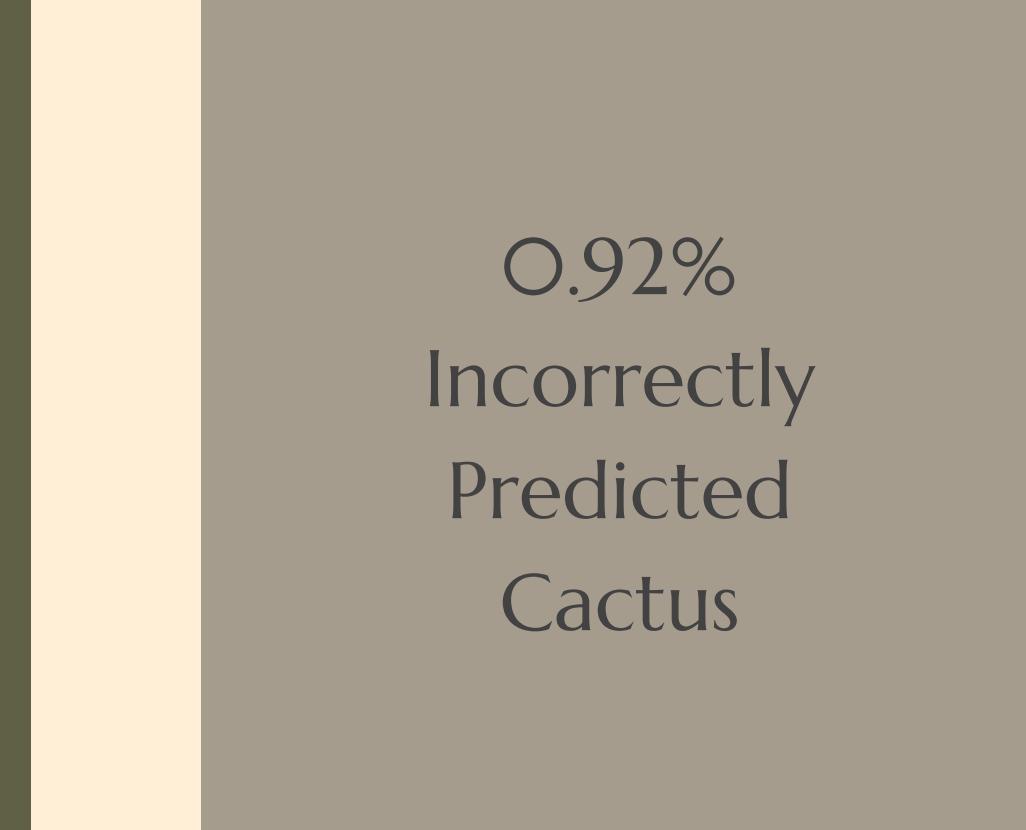
T
R
U
E

No Cactus



0.50%
Incorrectly
Predicted
No Cactus

No Cactus



99.50%
Cactus
Present

PREDICTED



Recommendations

1

RESOURCE
PRIORITIZATION

2

HARD TO REACH
AREAS

3

SENSITIVE
AREAS



Next Steps

1

SPECIES
CLASSIFICATION
EXPANSION

2

SPECIES COUNT

3

HUMAN IMPACT
ASSESSMENT



Thank You

[HTTPS://GITHUB.COM/HOULEYEMBALLO](https://github.com/HouleyEmballo)
