# Fire detection in images with CNN

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### Objective

The main objective of this project is to develope a prediction model through CNN neural networks able to detect fire at different levels when reading new images.

The secondary objective of this, is to explore the use existent methodologies for image processing, in order to identify the characteristics provided by itself that are useful for their classification. The intention is to find the most optimal way to use Google Colab resources, through the improvement of the parameters and the best selection of techniques.

#### Introduction

The dataset is created by joining two sets of images obtained from Kaggle. The sets of images were compiled by two different sources, the first one by NASA Space Apps Challenge in 2018, with the same goal we are using it, to develop a model that can recognize the images with fire. The second dataset author is unknown and was added to the other one, to get a larger scope information, not just forested areas.

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## ${\bf Methodology}$

ETL

#### Results

. In process

#### Conclusion

In process

#### Acknowledgements

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#### References

[1] A. Lastname. Title 3, 2016. URL arXiv:1603.00001.

[2] A. Lastname. Title 1. *Journal Name*, 00:000–100, 2016. doi: 10.0001/001.

[3] A. Lastname. Title 2. *Journal Name*, 2016. doi: 10.0001/002.