Mine-RPN

Or how we were able to recognize pigs et. familia in Minecraft

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A. Y. 2021 - 2022

Breaking the ice

FACCIAMO QUALCOSA DI SCEMO

Faster RCNN

Why minecraft?

Minecraft has several desirable qualities:

- Simple graphics.
- Sandbox.
- Available to every team member.
- Distinguishable entity silhouettes.

Figure: A Minecraft promotional image.

Behold, data!

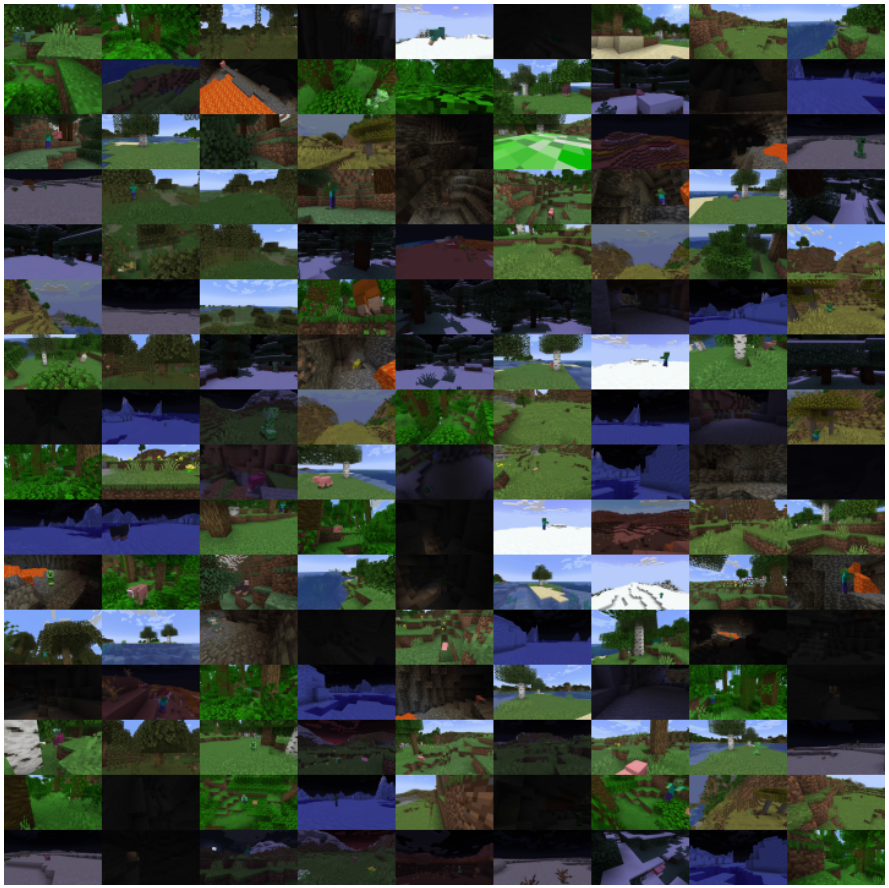


Figure: A representative chunk of our dataset

Our Backbone

The backbone is the convolutional *heart* of our model, it is:

- Blazingly fast.
- Adaptable to any resolution.

While also offering:

- A 92% accuracy when used as a Classifier.
- A mean training time of $\approx 2h$.

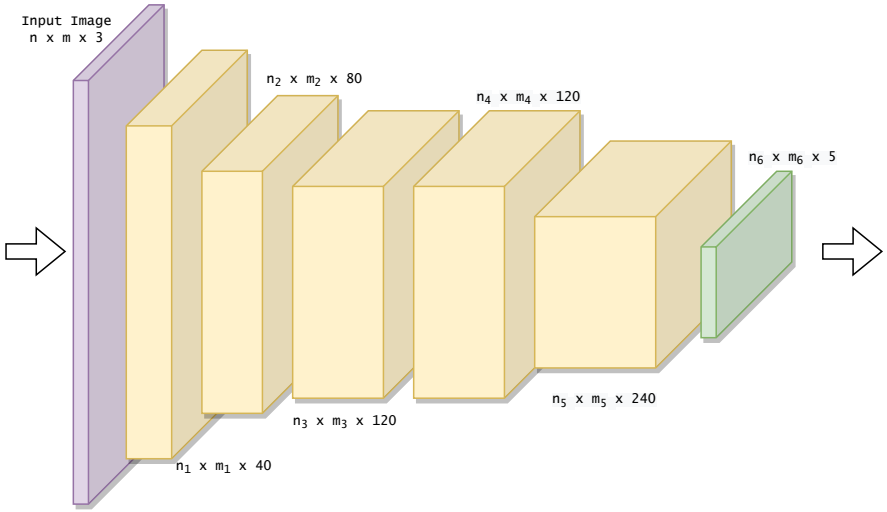


Figure: A Minecraft promotional image.

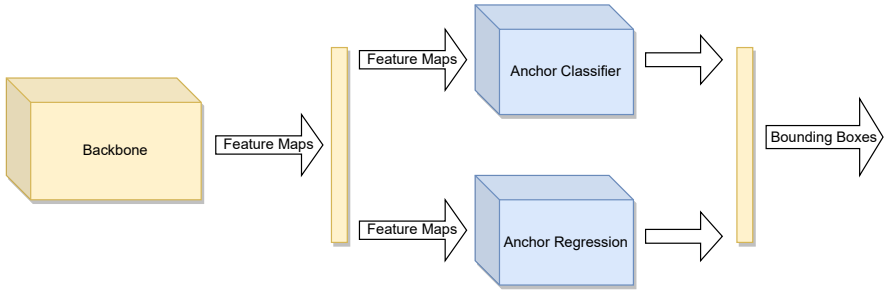
Our RPN

Our RPN network extends our Backbone and is composed mainly of two twin layers:

1. A Classification layer.
2. A Regression layer.

Before feeding data into those, it also performs some pre-processing:

- Anchor Splashing.
- Etc. . .



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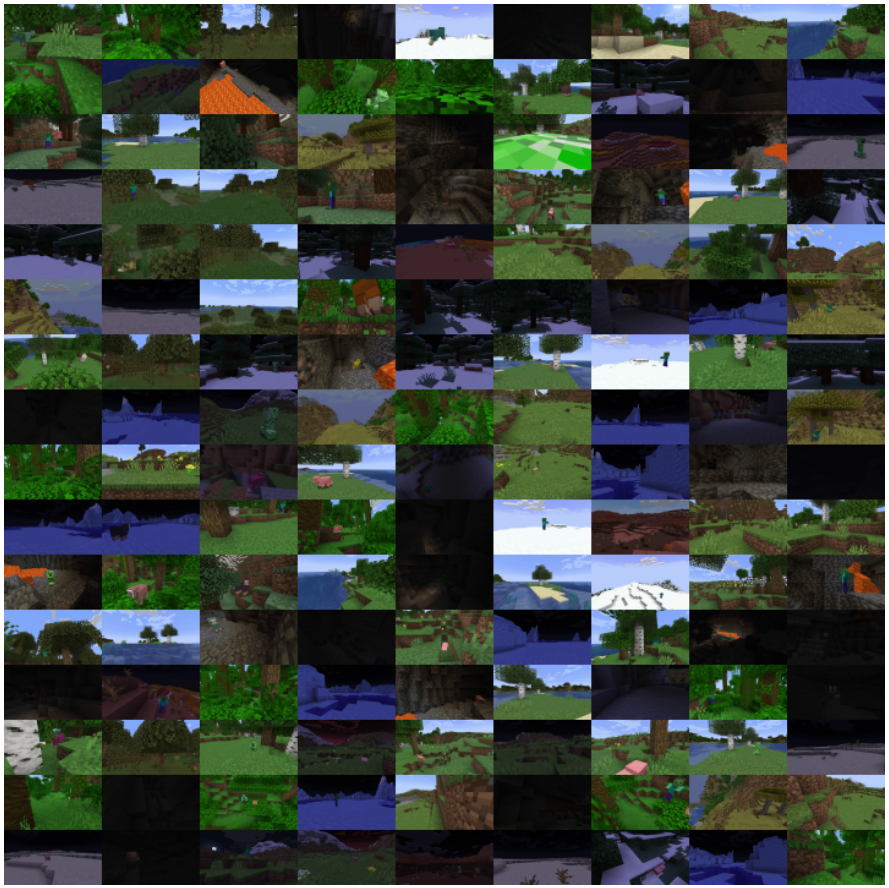

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