

Steel Defect Detection

Severstal Competition - Kaggle

One of the leading industries of the world

Steel used in:

- Building & Infrastructure
- Mechanical Equipment
- Automotive
- Metal Products
- Other Transport
- Electrical Equipment
- Domestic Appliances

2020

Severstal is one of the **leading** companies of the world in steel production.

11.3^M tonnes of steel

52.2^K employees

69 Countries

4.7^M tonnes of coal

7^M tonnes of iron ore

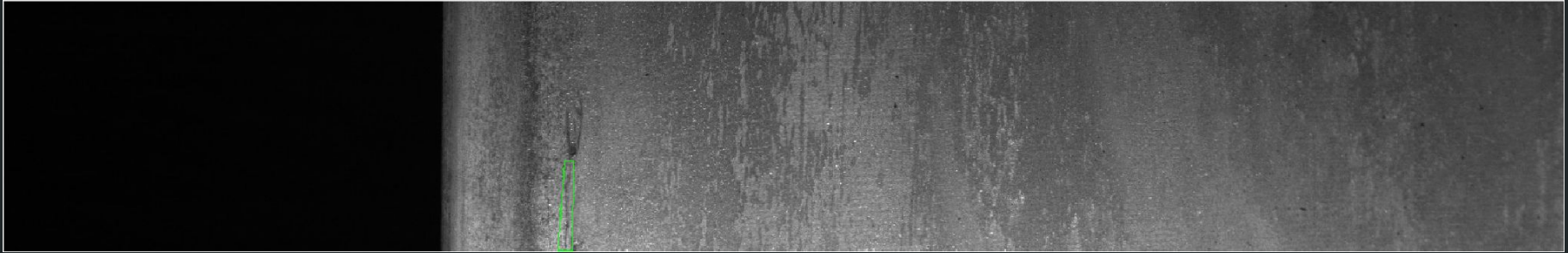
What are the types of the defects?

Type 1



What are the types of the defects?

Type 2



What are the types of the defects?

Type 3

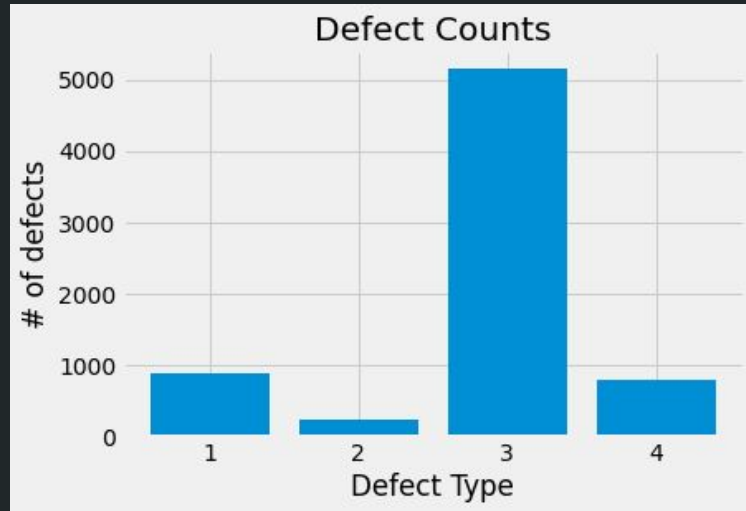


What are the types of the defects?

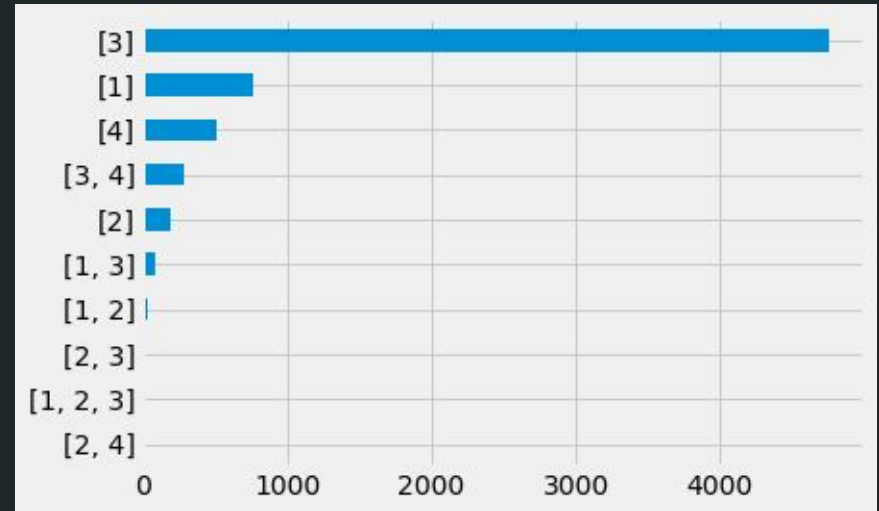
Type 4



Occurrence of the defects



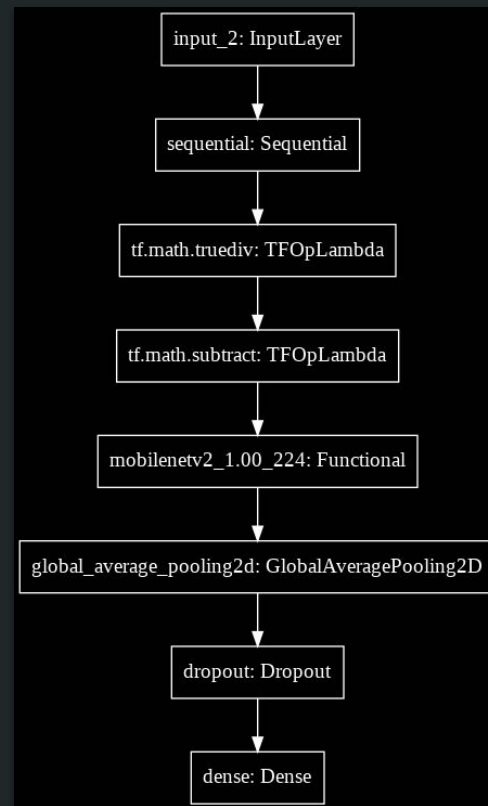
Individually



Combined

Solution Proposal

A neural network **understanding** the defects and **classifying** with **86%** accuracy. Based on ImageNet V2



Solution Proposal



Predicted: Type 3

True: Type 3



Predicted: Type 4

True: Type 4