

Machine Learning

Defect Prediction on Production Line

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1 Introduction

The goal of this project is to develop an AI based solution for a real world industry problem faced by Valeo [1].

Valeo [2] is an industry leading French automotive supplier. In order to stay competitive, the company wants to develop a system that is able to identify defects on products before testing.

Four files containing relevant data are available. The data are mainly values measured during production on different mounting stations as well as additional measures performed on test benches.

The target is to find the best prediction: $\text{Output} = f(\text{inputs})$

2 Data Analysis

3 Data Preparation

4 Model Selection

5 Model Fine Tuning

6 Conclusion

References

- [1] Defect prediction on production line by valeo. <https://challengedata.ens.fr/challenges/36>. Accessed: 2023.
- [2] Valeo. <https://www.valeo.com/fr/>. Accessed: 2023.