Capstone 3 Proposal

Problem Statement:
The current method of defect classification in steel is time and resource intensive. My aim is to produce a model that will accurately detect 6 types of defects with an accuracy above or equal to 80% within the next 3 months.

Context:
Steel quality assurance is a highly important task that is crucial to the deployment of steel especially in areas where safety is of utmost importance. The process requires a huge investment in trained staff and is very time consuming. Automating the process is crucial since demand for steel is increasing and the market is getting more competitive.

Criteria for success:
Detect 6 defects with an accuracy above or equal to 80%

Scope of solution space:
To acquire relevant data, train a classifier model and evaluate its performance. The model is then to be saved to be used in a commercial setting

Constraints:
1. Data comes from one source. Therefore the model might not work as expected in different labs.
2. There are more than 6 steel defects that would need classifying in steelmaking settings.