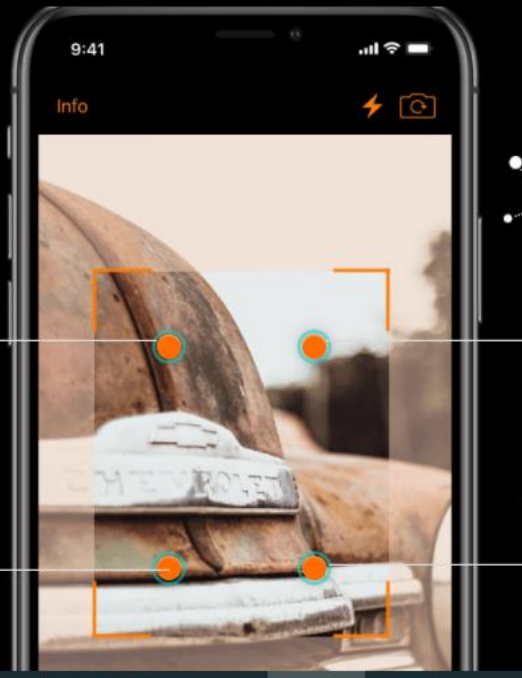
Corrosion app:

Optical Surface Recognition (OSR)

Optical Surface Recognition (OSR) is an innovative technology that blends industrial and commercial assessment methods with computer vision software. OSR technology is capable of identifying surface composition, surface coatings, and levels of degradation to augment inspection and asset maintenance.



PATTERNS

Our algorithm generalizes the concept of corrosion - so instead of searching for colors we learn the very concept of corrosion

BIG DATA

Our algorithms are trained off of over 25,000 photos of corrosion and growing daily - capturing a variety of surfaces and environment

INTERACTION

Zoom in on features using pinch-to-zoom technology and capture photos with our proprietary OSR risk score..

ALGORITHM

Our proprietary algorithm is capable of detecting corrosion on a wide variety of surfaces in real-time (30 frames-per-second)

https://try.osr.ai/

DNV·GL

SECTORS SE

DIGITAL SOLUTIONS / SERVICES

Pipeline integrity management

Synergi Pipeline software

to specify which feature scoring method supports are:

- Pearson Correlation
- Mutual Information
- Kendall Correlation
- Spearman Correlation
- Chi Squared
- Fisher Score
- Count Based

Services

Synergi Pipeline - Software for gas distribution networks

Synergi Pipeline - Management of inspection activities

DNV GL Machine Learning – Predict external corrosion on oil and gas pipelines

Microsoft sat down with DNV GL in their headquarters to execute on a five-day-hackathon where the focus was to predict external corrosion on pipelines using Machine Learning.

DNV GL already has an internal tool that visualizes the pipelines around the world. The application is called "**Synergi Pipeline**" and is connected to a single database that consists of data from multiple data sources gathered/generated from partners and vendors.

CONTACT US:

We started off with more than 300 columns (features) but eventually ended up with "only" 22 features and 60 882 observations of data (rows) after the cleaning. We decided to drop a lot of features so that it

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When building the model in AML Studio, we decided to split the data into two pieces. A simple way to use one dataset to both train and estimate the performance of the algorithm on unseen data is to split the dataset. You take the dataset, and split it into a training dataset and a test dataset. In our case, 70% of the data went for the training of the model, and 30% of the data went for testing. This split might vary based on the size of

For the training module, we decided that the column we wanted to predict, was "depth" as this measure implies if there is corrosion or not. We binned the amount of corrosion into categorical values of 0, 1 and 2.