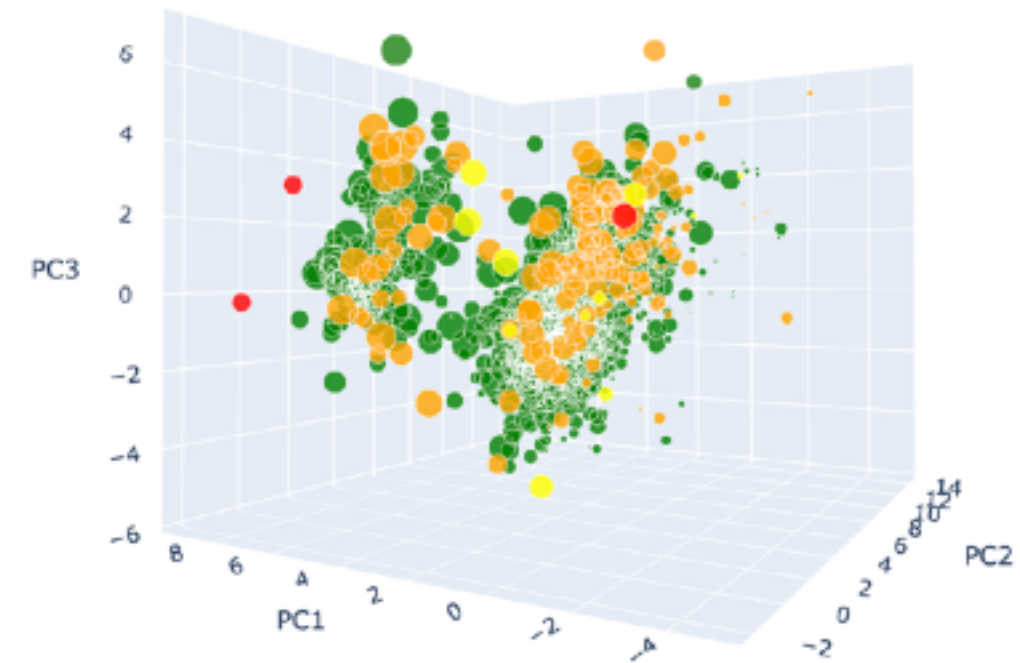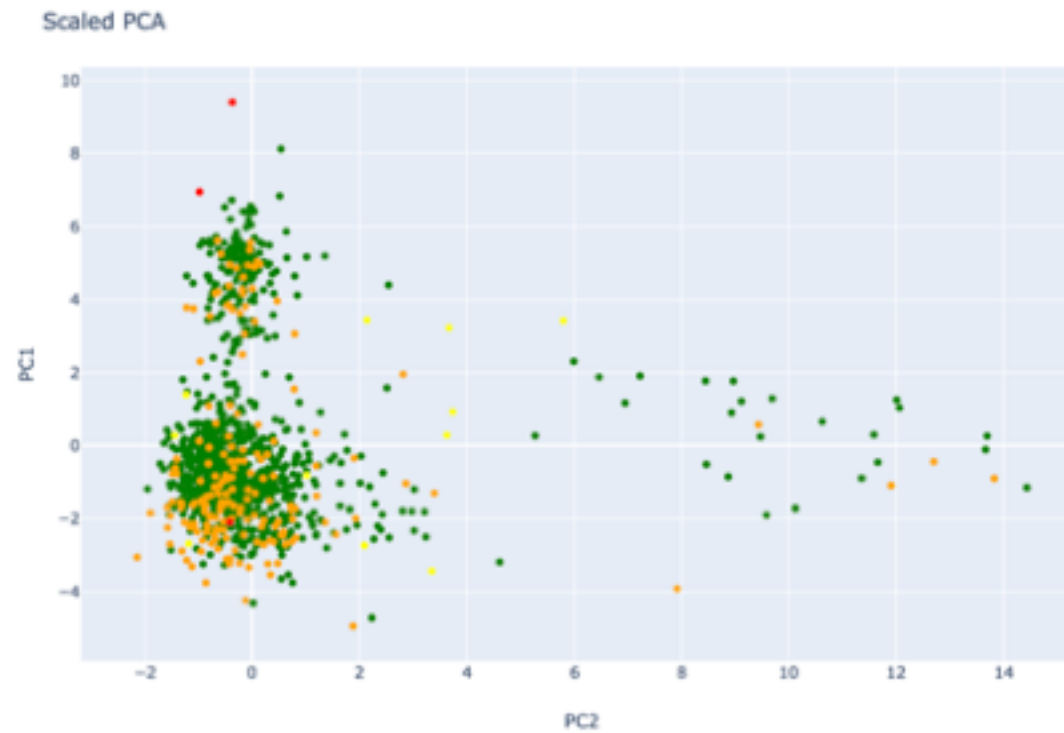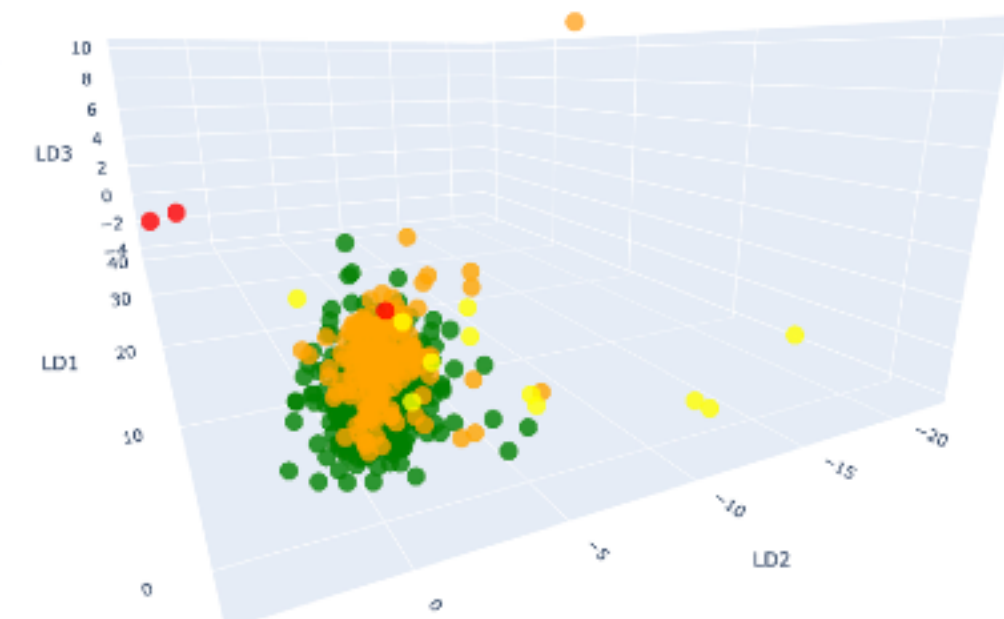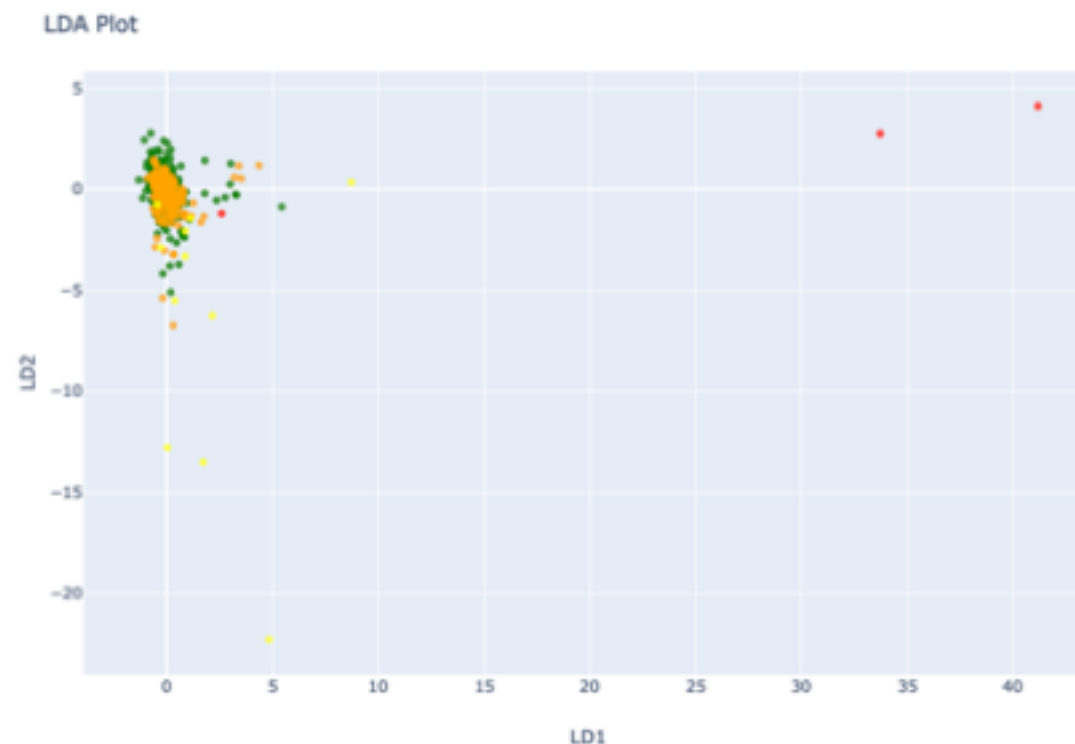# A's & B's are more similar than different by the looks of things!

… yet we're literally trying to classify between them.

// PCA

// LDA

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What does A, B, C & X actually intrinsically mean?

… it's arbitrary & completely subjective

"The oil additives **indicate wrong oil reported**. All other test results appear normal. Continue to sample at consistent intervals."

=

"Oil add pack suggests **wrong oil name**. All other test results appear normal. Continue to sample at consistent intervals."

A   ≠   **B**

… and a lot of the time doesn't even concern the machine's health

"The change in viscosity and additives indicate **mixed up compartments**. The zero soot and history confirm that this sample is not from an engine compartment. Suggest resample."

//

Classifying machinery condition using oil samples and binary logistic regression