Specifying a machine learning operational framework, refinement and scaling of machine learning models for progressive cavity pumps at Den Magiske Fabrikken

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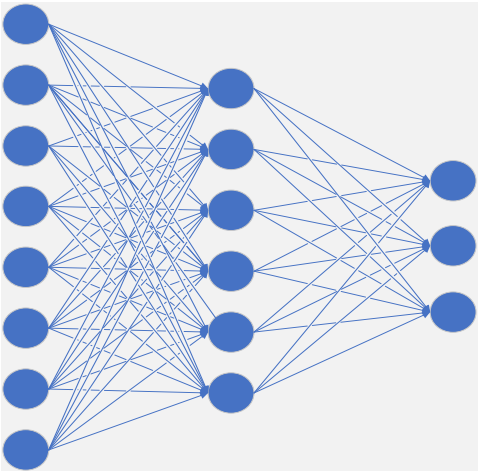
Introduction and background:

Den Magiske Fabrikken produces biogas (methane) and enriched fertilizer by processing the food waste of the region and animal manure. One part of the process uses progressive cavity pumps, which are often damaged due to solids, the acidity or the heat in the medium being pumped. To reduce the costs, Lindum the maintainer of the plant, wants a system which can warn when the pumps are damaged. A previous project made a machine learning model to give these warnings for one of the eight pumps.

Problem description and objective:

For the model that has been made to be useful, it needs to be integrated in some system which can notify the operators of the plant. Thus, a specification should be made for such a program.

As the current model only is trained for one pump, there is likely much information to gain from training on other pumps for two reasons, generalizing the model and being able to monitor all the pumps.



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